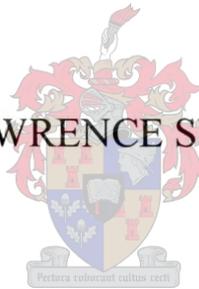


**EXPOSURE TO VIOLENCE AND SELF-REPORTED
AGGRESSION AMONG A SAMPLE OF HIGH
SCHOOL LEARNERS IN THE STELLENBOSCH
DISTRICT**

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of Science (Psychology) at Stellenbosch University.

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work, and that I have not previously in its entirety or in part submitted it at any university for a degree.

ABSTRACT

The phenomenon of violence is an all-too-common experience for many people around the world. In South Africa the legacy of a system of institutionalised violence has influenced the fabric of this society. The consequences of violence on South African youth are of major concern for the country's future. This research examines the types and contexts of exposure to violence and the types of self-reported aggression in a sample of 426 adolescent learners from three schools in the Stellenbosch District. The role of gender in mediating the type and the location of violence exposure and aggressive behaviour is also explored in this study.

A questionnaire consisting of modified versions of the Screen for Adolescent Violence Exposure (SAVE) and the Aggression Questionnaire (AQ) was administered to 187 male and 239 female adolescents from three schools.

The sample reported being exposed to moderately high levels of indirect violence in their community. This exposure was significantly correlated to high levels of self-reported aggression. Results from the Analyses of Variance indicated that females were exposed to more physical/verbal abuse at home, while males more frequently witnessed traumatic violence at school and in the community. The learners reported high levels of aggression, particularly with regard to physical aggression, verbal aggression and hostility. From these observations, females were found to be more hostile, while males demonstrated higher levels of physical aggression. Analysis of the gender differences suggested that

males were more likely to display verbal aggression when exposed to violence, while females' exposure to physical/verbal abuse at school appeared to increase their levels of anger.

The findings from this study indicate that adolescents exposed to high levels of violence are at risk of presenting with elevated levels of aggression. Efforts need to be made to reduce the levels of exposure to violence and adolescents' levels of aggression. It is suggested that adolescents be taught prosocial skills with regard to conflict situations.

OPSOMMING

Geweld is vir baie mense dwarsoor die wêreld 'n alledaagse verskynsel. Die stelsel van geïnstitusioneerde geweld in Suid-Afrika het die wese van die samelewing beïnvloed. Die gevolge van geweld op die Suid-Afrikaanse jeug is vir die land se toekoms kommerwekkend. Hierdie studie ondersoek die tipes en inhoud van blootstelling aan geweld, die tipes van selferkende aggressie en die verband tussen blootstelling en aggressie. Die studie ondersoek ook die rol van geslag in die blootstelling aan geweld, asook dié van aggressiewe gedrag. Die ondersoekgroep was 'n groep van 426 adolessente leerders van drie skole in die Stellenbosch Distrik.

'n Vraelys, bestaande uit aangepaste weergawes van die "Screen for Adolescent Violent Exposure (SAVE)" (Hastings & Kelley, 1997) en die "Aggression Questionnaire (AQ)" (Buss & Perry, 1992) is gebruik om 187 manlike en 239 vroulike adolessente by die drie skole te toets.

Daar is gevind dat die ondersoekgroep blootgestel was aan redelike hoë vlakke van indirekte geweld in hulle gemeenskap wat beduidend korreleer met hul hoë selferkende aggressie. Resultate van die variansie-ontleding wys dat meisies meer blootgestel is aan fisiese/verbale geweld tuis, terwyl seuns weer meer dikwels getuies van traumatiese geweld by die skool en in die gemeenskap was. Die leerders het hoë vlakke van aggressie, veral fisiese aggressie, verbale aggressie en vyandigheid gerapporteer. Van die bevindings kan afgelei word dat meisies meer vyandig is, terwyl seuns weer hoër vlakke

van fisiese aggressie geopenbaar het. Analise van die geslags verskille dui aan dat seuns meer geneig is tot verbale aggressie wanneer hulle aan geweld blootgestel word, terwyl meisies meer geneig is tot woede wanneer hulle aan fisiese of verbale geweld by die skool blootgestel word.

Die bevindings dui aan dat adolessente wat blootgestel word aan hoë vlakke van geweld geneig is tot hoë vlakke van aggressie. Pogings behoort aangewend te word om geweld en die vlakke van aggressie verminder. Daar word aanbeveel dat adolessente sosiale vaardighede geleer moet word om konfliktsituasies beter te kan hanteer.

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1. INTRODUCTION

Violence is a highly prevalent phenomenon that tears away at the fabric of society causing physical, social and psychological injuries to communities and individuals all around the world. The levels of violence are of great concern for all societies. South Africa has been indicated as one of the most violent countries in the world and thus concern around issues of violence is heightened for this country (Barbarin & Richter, 2001). The causes of these high rates of violence are numerous and a substantial body of research implicates the historical use of state sanctioned violence as a strong contributor to the current levels of violence. This research has advanced the notion of the existence of a “culture of violence” in South African society. Within this culture of violence communities are subject to a high prevalence of structural and interpersonal violence, which they have come to regard as normal (Angless & Shefer, 1997; Barbarin & Richter, 2001; Hamber, 1999; Reddy et al., 2003).

Findings from violence surveys indicate that in 1996, South Africa had the highest homicide rate in the world. Sixty-one persons per 100 000 were murdered, and 2 500 persons were treated daily for violence related injuries (cited by Legget, 2003). The police report for 2002/2003 indicated that the homicide rate was forty-seven persons per 100 000 (South African Police Service, 2003). Legget (2003) indicated that this homicide rate was the second highest in the world, the highest being that of Colombia in South America which reported an incidence of sixty-six persons per 100 000.

According to the World Health Organisation’s report on violence and health (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002), adolescents are perceived to be most at risk

to the negative consequences of violence. Worldwide there is concern over the high levels of violence to which they are exposed or engaged in, as well as the potential risks such violence could have on their development. As a result of the high prevalence of violence experienced in South Africa, children and adolescents are exposed to violence either as direct victims, bystanders or perpetrators. This exposure not only takes place on the streets or in the community, but also as close as within the individual's school and home environment (Reddy et al., 2003). The consequences of being exposed to violence in these contexts may be any combination of physical, emotional or behavioural problems, often resulting in impaired functioning of the individual as s/he faces other developmental challenges associated with adolescence (Burnett, 1998).

Van der Merwe and Dawes (2000) observed that the approach in South African research on violence has mostly focused on the links between exposure to violence and emotional disorders. The present study moves away from this approach and looks at the manner in which adolescents are socialised into maintaining the prevailing culture of violence. Garbarino (1999) maintains that through the socialisation of youth into violent lifestyles, the problem of the cycle of violence is compounded. This socialisation of youth into violence is thus considered to be a major concern which needs to be understood in attempts to halt this negative socialisation.

Through the experience of violence in everyday life, research either explicitly or implicitly suggests that violence is learned. In recent years, theories such as the Ecological Model (Bronfenbrenner, 1979) and the Social Learning Theory (Bandura, 1973) have been used extensively to understand its complexity and to determine the

developmental outcomes of exposure to all forms of violence. Due to their extensive use and their ability to explain the contribution of environmental factors, these theories were the major theories guiding the present research.

The Ecological Model considers the developing individual to be an active participant in his/her development. The individual interacts with the multiple levels of the ecological system in which s/he is situated and there is a reciprocal relationship between the individual's actions and the environmental stimuli. The Social Learning Theory maintains that within all social interactions, the individual brings his/her observations of similar interactions, between others in the individual's social environment, to bear on an interpretation of the situation and acts accordingly. Both theories are thus seen to involve individual-social interaction, which has an effect on both the individual and the individual's environment.

The aim of this study was to examine the levels of exposure to violence occurring within the three contexts of home, school and community and the subsequent effects of exposure to violence on self-reported aggression for a sample of coloured¹ adolescents. Furthermore, the levels of self-reported aggression in the sample were measured. Data was collected from a sample of senior-secondary school learners from the coloured communities of Stellenbosch. The participants represented a group of individuals who were perceived to be at risk to the cycle of violence on account of the presence of specifically identified risk factors. Factors of age, socio-economic

¹ The defining of this group as coloured is not intended to support the apartheid system of racial classification. The use of the term merely represents the population group to which the participants belong.

conditions, and the prevalence of violence in their environment, all contributed to the perception of risk amongst the sample.

1.1 Definition of Terms

As the main aim of this study was to determine the levels of exposure to violence and its relationship to self-reported aggressive behaviour within a sample of adolescents, it is important to delineate the constructs on which the research focused. The constructs of violence, aggression and adolescence will be defined with regard to their use in this study.

The terms aggression and violence are often used interchangeably when referring to physical assault that causes harm to an individual or group. This dual definition for these terms makes their distinction complicated. Taylor, Peplau, and Sears (2000) found that societies differ in how they conceptualise aggressive and violent behaviour, thus further compounding the definitions. Accordingly, some societies view violence and aggression as favourable means to gain and/or display power and status, while other societies view violence and aggression negatively. For the purpose of this study, aggression will be defined as “any form of behaviour directed toward the goal of harming another living being who is motivated to avoid such treatment” (Baron & Richardson, 1994, p.5). Bandura (1973) proposes that aggression can be observed through two broad distinctions based on the motives of the behaviour. These two distinctions, namely affective (or reactive) and instrumental (or proactive) aggression are present in most postulations of aggression. According to Geen (1998), the motive behind affective aggression is the intent to harm the victim, whereas instrumental aggression is motivated by other concerns, such as goal attainment. The four subtraits

of aggression identified by Buss and Perry (1992) are physical aggression, verbal aggression, anger and hostility. As instrumental components of behaviour, physical and verbal aggression are seen to involve harming or hurting others. Anger represents the affective component for aggression in that it is regarded as the arousal and preparation for aggression. Lastly, the authors describe hostility as the cognitive component of aggression expressed through feelings of ill will and injustice.

Within the framework of aggression, this study focuses on violence as a form of aggression experienced by individuals both through the intent and actions of others in their environment. In an attempt to define violence, the World Health Organisation (1996) proposed the following definition:

The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in, or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation. (pp. 3-4)

As can be seen from this definition, violence can be direct, overt, and intentional. Hastings and Kelley (1997) further categorised direct exposure as traumatic violence or physical and verbal abuse. They maintain that traumatic violence exposure refers to being a witness or victim of more severe experiences of victimisation whereas physical/verbal abuse refers to threatened or actual violent harm directed at an individual.

The definition of violence rendered by the World Health Organisation ascribes two roles to the act of violence; namely those perpetrating the act, and those victimised through the act. This definition, however, neglects to emphasise the role of a third party who is possibly involved in such acts, and that is the individual who witnesses the violent (or potentially violent) event, the co-victim. In their assessment of the severity of violence exposure, Hastings and Kelley (1997) described such indirect violence exposure as a variable referring to witnessing or hearing of less severe forms of interpersonal violence. Much research has been done on the detrimental effects of such indirect exposure on the individual and consequential behaviour. Stevens, Wyngard and van Niekerk (2001) described the destructive force of violence as “a process that inhibits human growth, negates inherent potential, limits productive living and causes disability and death” (p.147).

An age group identified to be particularly at risk for the negative consequences of violence exposure are the youth. In terms of age, adolescents subsist of individuals between the age of 13 and 18 years (Louw, 1997). Developmentally, this period of life is highlighted by puberty when the individuals’ physiological differences become more developed and differentiated, especially those concerned with gender. Psychologically, individuals in this age group are considered to be going through the crucial process of personality formation in which they are establishing their individual identities based on the perceived gender demands. Thus, exposure to violence holds serious implications for the psychosocial development of young people and the well being of society (Reddy et al., 2003).

2. LITERATURE REVIEW

The global phenomenon of violence presents one of the most pervasive problems in the world and, as such, it is regarded as a major public health problem (Krug et al., 2002). In their report for the World Health Organisation, Krug et al. (2002) reflect that, within societies, violence is a phenomenon that has become entrenched as a fact of life that people are required to react to. However, the essence of the report stresses that violence and its consequences are problems that can be prevented. In order to do this, they emphasise that elements of the problem need to be more clearly understood.

The causes and consequences of aggression, violence and exposure to violence subsist of a multifactoral myriad of behavioural and personal predispositions occurring within specific contexts. Thus, when one attempts to explain the phenomena of aggression and exposure to violence within a community, one needs to be attentive to the circumstances in which the exposure takes place as well as the individual and communal interpretation of the occurrence of violence. Explanations on the causes of the phenomenon of violence are as diverse and complex as the consequences of violence.

2.1 Theoretical Perspectives

Numerous theories have been advanced to explain the phenomenon within societies. They range from biological drive theories to more complex psychological theories of social behaviour. The present study will primarily focus on the manifestation of aggression due to exposure to violence from the perspective of the Bandura's Social Learning Theory (1973) and Bronfenbrenner's Ecological Theory (1979). In

accordance with these theories, attention will be given to contextual variables as well as individual variables such as gender while trying to explain the relationship between exposure to violence and aggression. In order to appreciate the full scope of this relationship, a brief discussion on some of the more popularly used theories to explain the cause of violent behaviour is given here.

2.1.1 Biological Theories

Biological theories present deterministic views on aggression, proposing that aggression is an inherently human condition. Many of those subscribing to a biological source of aggression such as testosterone or other physical predispositions propose that aggression and violence is an evolutionary consequence (Archer, Biring, & Wu, 1998). In this evolutionist approach, ancestors who were more violent were subsequently fitter and therefore more apt to survival and consequently had more favourable reproduction rates than more placid individuals (Wilson & Daly, 1996).

Biological attributes have been associated with differences in the levels of aggressive behaviour. The strongest differentiating factor in these postulations is gender and the role of steroid hormones, particularly the role of the male hormone testosterone as a potentiating factor for aggression. While the relationship between these hormones and aggression is not a simple one, steroid levels can influence and are influenced by aggressive behaviour (Archer, Biring, & Wu, 1998; Miczek, Mirsky, Carey, Debold, & Raine, 1994).

The biological basis for aggression is further enhanced by observations of the role of genetics and brain functioning on aggressive behaviour. Accordingly, Vogel (2002)

implicates the role of genetics and brain diseases as causal factors for violence within individuals, and postulate that hormones such as serotonin and testosterone can cause individuals to be more aggressive. George et al. (2004) found that some perpetrators of domestic violence showed lower metabolism in the right hypothalamus and decreased correlations between cortical and subcortical brain structures. Moffit et al. (1998) further emphasise the role of dysregulation of serotonin and other neurotransmitters, as well as irregular brain structure in the emergence of violent behaviour. Most researchers from the biological perspective acknowledge that biological factors are not a conclusive explanation of aggression and emphasised that social factors should also be examined.

2.1.2 Psychological Theories

Psychological theories regarding the causes of human aggression attempt to conceptualise the constructs of violence and aggression within the confines of the human psyche, both individually and collectively. Thus, these constructs vary according to the framework with which the psyche is viewed. The theories of aggression presented here are not an exhaustive list, but rather they offer insight into the wide range of theories that can and have been used to describe aggression.

As a theorist of unconscious drives, Freud considered that the origin of aggression is embedded in unconscious processes, or instincts. He proposed the existence of two main instincts responsible for behaviour, namely the death instinct (*thanatos*) and the life instinct (*eros*). In his postulations the death instinct, regarded as an inevitable part of the psyche, is responsible for motivating aggressive behaviour through its destructive tendencies. On the other hand, the life instinct attempts to bind living

organisms in strong unities. The two instincts are proposed to be out of balance, however, when developmental challenges are not met thus resulting in an aggressive personality where the death instinct is dominant.

The Frustration Aggression Hypothesis (Dollard, Miller, Doob, Mowrer, & Sears, 1939) is considered to be a more scientifically based theory than Freud's (Geen, 1998). This theory proposes that aggression is a consequence of frustration. Within the confines of this theory, the blocking of a goal is met with frustration, which subsequently instigates an aggressive response. This response is designed to remove the obstruction thereby decreasing the frustration.

The above theories attempt to explain behaviour in terms of a one-sided deterministic view, where behaviour is depicted as being shaped and driven by internal dispositions (Biological and Freudian Theories), or being shaped and controlled by environmental influences (Frustration Aggression). However, according to the Social Theories, human behaviour is socially situated and seen as the dynamic interplay of personal and situational influences. The central construct of social learning theorists is reciprocal determinism. This construct acknowledges that while the individual may in some way be influenced by personal or social factors, the individual may also have an impact on the personal or social factors in their environment. In the case of Bandura's Social Cognitive Theory (cited by Louw, 1997), a triadic reciprocal relationship exists in which the person, the situation and the behaviour have an influence on each other and thus the outcome. This reciprocal determinism explains how antisocial behaviour is acquired. Bronfenbrenner's Ecological Model (1979) also draws on this concept of

reciprocal determinism to explain the individual's interactions with his/her environment.

Bandura's Social Learning Model (1973) maintains that antisocial behaviour such as aggression is learned through a process of modelling. Modelling consists of the acquisition of responses through observation and the maintenance of behaviour through reinforcement. In the case of violent behaviour, the individual may observe acts of violence in his/her environment and judge these acts as desirable. The modelling of violent behaviour and aggression, according to this postulation, is thus a consequence of direct observation of violence and its outcomes resulting in an acceptance of the behaviour by the individual. Besides the observation of the behaviour and its outcomes, the individual also considers the characteristics of the model. Thus, if the model is someone that the observer can identify with, or views as a role model, the observer is more likely to imitate his or her behaviour. Whether or not these behaviours are acted out depends on the contingencies that the observer perceives for his or her behaviour. If certain incentives for the aggressive behaviour are present, there is an increased likelihood that the observer will perform an aggressive act. Following the aggressive act, the individual may be rewarded or punished; aggressive behaviours acquired through observation are likely to be carried out only if the individual is rewarded for these actions, thereby reinforcing the behaviour. Other important considerations in the Social Learning Model are individual factors such as age, gender, and the personal value systems of the individual. The extent to which behaviour is acquired depends on the level of congruency of the behaviour with the individual's existing values. Through the repeated exposure to and performance of aggressive behaviour, the individual may

become desensitised to the effects of aggression and become accustomed to more aggressive behaviour.

Research has concurred with Bandura's theory in their conclusions that exposure to violence tends to increase violent behaviour through processes of desensitisation and learning, which occur during the course of modelling (Durant, Cadenhead, Pendergrast, Slavens, & Linder, 1994; Jonson-Reid, 1998).

In Bronfenbrenner's Ecological Model (1979), the individual is seen to be a system immersed in an ecological system consisting of multiple levels, all of which have an impact on the individual's development. The model, like Bandura's Social Theory, emphasises the importance of understanding the contexts in which violence takes place as well as the dynamic interactions of these contexts with each other and the individual. For the purpose of this study, the micro level refers to violence in the family and the home environments. This context is more proximal and exerts a greater influence on the individual's mental health and well being. The meso-level refers to violence in the school and community and is more distal to the individual. For example, violence at school impacts on the individual when s/he comes into contact with it at school. Further, the consequences of violence at school may enter the home context when the school informs parents of the event. Contexts such as the exo-system and the macro-system, although more distal, may exhibit a weaker yet more significant influence on the individual. Violence in the exo-system refers to exposure through the media, whereas the macro level refers to structural violence such as oppression, racism, poverty and social injustice. Through the understanding of these interactions, the regard for violence within a specific community can be deciphered.

When violence is entrenched at the macro- and exo-levels, the model maintains that it is likely to be adopted at the micro- and meso-levels. Violence on these distal levels filters down within the ecosystem and affects the individual at the micro-level. Thus when violence becomes institutionalised within such a society, it becomes an acceptable means to resolve conflict. Risk of exposure to violence, and its consequences, is thus seen to accumulate as violence occurs within the ecosystem (Garbarino, 1999). Thus in South Africa, it is likely that the prevailing culture of violence will impact on all levels, including homes, schools, and the community.

The Ecological and Social Learning Models suggest that in communities where mediatory factors are questionable and risk factors are high, the consequences of violence on individuals within these communities could be dire. Accordingly, mediatory factors are factors which could potentially protect individuals from the negative consequences of violence, while risk factors in such communities include the high levels of violence occurring in such communities. Through the presence of violence and violent role models in their community as well as poverty in their environment, some adolescents can be seen to be at a high risk to the negative consequences of this exposure, including becoming violent themselves.

On the individual level of social interaction, Crick and Dodge (1996) propose the Social-Information-Processing Model to explain violent behaviour. This model posits that social behaviour of individuals is a function of sequential steps of information processing. These processing steps include the encoding of social cues, interpretation of social cues, clarification of goals, accessing or constructing the response, deciding on the response, and behavioural enactment. In this model, emphasis is placed on

three cognitive structures namely: beliefs, scripts and schemas. Beliefs are an individual's perception of what behaviour is acceptable and what is not; through constant exposure to violence, such behaviour may be included as an acceptable belief. Scripts are regarded as the individual's way in which to act in a given situation or as the way in which a problem should be solved. The third structure, schemas, represents the beliefs that the individual attributes to the situation, his/her beliefs about the world. Crick and Dodge (1996) found that there seems to be two general social-information processing patterns present in children who tend to exhibit aggressive behaviour. These are an apparent deficit in their processing techniques (e.g., hostile attributional bias) and the belief that aggression is an acceptable form of behaviour. In an expansion of this model, Huesmann (1994) identifies the role that normative beliefs have in the enactment of aggressive behaviour. Normative beliefs are defined as individualistic cognitive standards about the acceptability of behaviour. Through the observance of aggressive behaviour acted out as the norm, it is likely that an individual's normative beliefs will be favourable towards violence, thereby increasing the likelihood of the individual partaking in violence themselves.

Besides poverty and violent role models, numerous factors are considered to be important contributors to the phenomenon of violence and aggression in children and adolescents. The observation that adolescent and childhood abuse tends to be associated with subsequent violent behaviour has been widely documented (Barlow & Durand 1999; Rivara & Widom, 1992; Song, Singer, Trina, & Anglin, 1998). In impoverished communities, parental or group factors such as substance abuse, assault and neglect increase the likelihood of aggression in children and adolescents. Levels of aggression may be further affected by the allure of gangs, alcohol, drugs and

money, media violence and a lack of alternate activities in which individuals can get involved (Bachman, & Peralta 2002; Dembo, Williams, Wothke, Schmeidler, & Brown, 1992; Maree, 2000).

2.2 Violence in the South African Context

South Africa has come to be considered among the world's more violent societies (Butchart, Nell, & Seedat, 1996). Within South Africa, violence has reached epidemic proportions resulting from what has been described as a "culture of violence" in which violence has become socially endorsed as an acceptable means to resolve conflicts and achieve goals (Butchart, Nell, & Seedat, 1996; Cock, 2001; Hamber, 1999; Marais, 1998). The high prevalence of violence has been found to be strongly associated with the historical milieu of oppression and marginalisation during apartheid (Stevens, Wyngaard, & van Niekerk, 2001).

Apartheid was a system through which the state exercised control over the majority of its population through segregation and oppression. In this period violence became entrenched within the country as a means to enact this oppression. Apartheid tore away at the previously existing societal structures of the communities and enforced restrictive regulations by violent means. The response of some of the people in these oppressed communities to the strained living conditions they were subjected to was to create a culture of resistance in which violent oppression was met by violent resistance. Thus, political violence arose through a struggle to acknowledge basic human rights to a means to gain political fortitude (Marais, 1998).

While political violence arose out of the imbalance of power, criminal violence progressed from the disparity of resources. Oppression was not only expressed

through violence and denial of rights, but also through an uneven distribution of resources. The end of apartheid encouraged the recognition of equal rights and the promotion of social justice. The continued inequity in the distribution of resources was a factor causing criminality and violence during apartheid and is still an enduring remnant of apartheid.

As Barbarin and Richter (2001) indicate, both political and criminal violence are rooted in social conflicts. With the end of apartheid came a decline in politically motivated violence and a concurrent increase in criminal violence. This recent shift in the form of violence has prompted a shift in the focus of violence and conflict research. Research is specifically focussing on the effects and extent of violence on children and youth (Angless & Shefer, 1997; Barbarin & Richter, 2001; Butchart, Nell, & Seedat, 1996; Hamber, 1999; Lockhat & van Niekerk, 2000; Pietersen, 2002; Stevens, Seedat, & van Niekerk, 2003; Straker, Mendelsohn, Moosa, & Tudin, 1996; van Wyk, 2001; Wynchank, 2000).

The Ecological Model maintains that violence occurring in one system in the ecosystem filters down and potentially impacts on other systems. Given the levels of violence in South Africa it could be argued that violence has become entrenched in the fabric of society. Therefore, from the ecological perspective, as long as violence persists, no community in South Africa will be shielded from the effects of violence, every individual is affected directly or indirectly by its occurrence in society. It appears that individuals have learnt these violent ways of interacting through mechanisms of social learning. As such, many authors have referred to individuals' positive regard for violence as major contributor to violence in South Africa

(Butchart, Nell, & Seedat, 1996; Dawes & Tredoux, 1990; Hamber, 1999; Lockhat & van Niekerk, 2000; Maree, 2000).

While the range of entrenched violence in South Africa is extremely diverse and complex, it is possible to gauge the extent of this violence through observation of how it is manifested. The pervasiveness of interpersonal violence and its direct effects on individuals can be approximated through the monitoring of hospital and police records. Using these records to explain the prevalence and severity of violence raises issues of accuracy and generalisability. These figures do give an overall indication of the prevalence and the regard for criminal and/or severe violence within certain areas. The less direct prevalence and effects of violence are more difficult to observe in such an objective manner. For example, domestic violence and violence against children are notoriously plagued with surveillance problems. However, in a study using a representative sample on partner violence and corporal punishment, Dawes, Kafaar, de Sas Kropiwnicki, Pather, and Richter (2004) indicate that nearly 20% of South African men and women have experienced violent physical assaults in their domestic relationships, as perpetrators, victims, or both. These researchers further report that the prevalence of violence against children in the form of corporal punishment was as high as 57%. School and community violence prevalence is also beset with reporting difficulties; hence the only way to acquire accurate data on individuals' exposure is via a case-by-case approach.

It is encouraging to see that in comparison to previous years, the latest police crime statistics reveal a decrease in all violent crimes, except aggravated robbery. Legget (2003) maintains that a decrease in the incidence of reported crime does not

conclusively indicate a decrease in the crime rate. While the drop in violent crime was seen to be a promising observation, Templeton and Mapazi (2004) cautioned that many people in South Africa continue to feel unsafe. The murder rate, which is the least controversial figure as it is the most objectively measured, was found to have dropped from forty-seven to forty-three persons per 100 000 (South African Police Services, 2004). The decrease in murder rate in the Western Cape was seen to be 22.5% in the last two years (Mtyala & Michaels, 2004).

2.2.1 The Western Cape

The sample in this study was drawn from the coloured communities in the Stellenbosch district. Stellenbosch is an agricultural district in the Western Cape Province of South Africa. The Western Cape Province currently has a population of approximately 4.5 million people, a large number of which (approximately 2.9 million) reside in the Cape Metropole (Statistics South Africa, 2004). Violent crime statistics for the province showed 2 839 reported cases of murder, 3 633 cases of attempted murder, 13 855 cases of robbery with aggravating circumstances, 36 912 cases of assault with grievous bodily harm, 52 339 reported cases of common assault, and 268 incidents of public violence for the 2003/2004 financial year (South African Police Services, 2004).

Under the apartheid regime, the ideology enforced a polarisation of the population of the Western Cape according to the assigned racial categories. The Cape Flats, an area of sub-economic housing on the outskirts of Cape Town, was brought into existence to provide housing for the predominantly coloured labour force. Although the Cape Flats represents the largest of such settlements, towns all over the province were

subject to similar segregation. Under the Group Areas Act, people designated as 'coloured' were forced to move from their urban homes to be relocated into these communities.

Despite the new political dispensation, the vast majority of coloured urban residents continue to live under these marginalised conditions in the residential areas that were formerly demarcated as 'coloured' (Bekker & Cramer, 2003; Legget, 2004). The present day Stellenbosch district is testament to this, consisting of a diverse community in which the impoverished lower class living conditions are in stark contrast to those of the wealthy upper class.

Oosthuizen and Nieuwoudt (2003) indicate that more than one third of the poverty in the Western Cape is found in its coloured communities. The areas of Jamestown, Cloeteville and Idas Valley remain predominantly coloured and the average household incomes in these areas are indicative of mid-to-low socio-economic communities. The most recent census data indicate that the unemployment rate in the predominantly coloured communities in Stellenbosch was between 15.2 and 19.1% (Statistics South Africa, 2004).

The Stellenbosch coloured communities consist of a large population of agricultural workers, amongst whom alcoholism and domestic violence is prevalent (Maree, 2000; Van der Hoven, 2001). Alcoholism within these communities has its roots in the history of the wine industry's 'dop system'. In this system, farm workers were given a portion of their wages in the form of alcohol. The consequence of this was an alcohol dependent and impoverished workforce (Maree, 2000). With the dependence on

alcohol and subsequent social problems the communities became increasingly marginalised. Presently, the most severely impoverished sector in the Western Cape is its agricultural sector; this is also the poorest agricultural sector in South Africa (Oosthuizen & Nieuwoudt, 2003).

Legget (2004) maintains that the history of discrimination has resulted in current feelings of social exclusion expressed by these communities as well as the high crime rates, which are argued to be a symptom of their social exclusion. On the Cape Flats, these problems include high unemployment, poverty, overcrowding, substance abuse, and high levels of criminal and domestic violence (Van der Merwe & Dawes, 2000). Contributing to these social problems is the widespread prevalence of gangsterism in these communities (Pinnock, 1996; van Wyk, 2001). All of these factors can be seen to increase the likelihood of exposure to violence by individuals. Furthermore, the social factors and their consequences are linked to a breakdown of family structure, which further marginalises dysfunctional families and troubled youth. Communities that are characterised by the above mentioned levels of social disorder provide a context in which youth are at risk of being exposed to violence (Salzinger, Feldman, Stockhammer, & Hood, 2001).

Wynchank's (2000) study of Manenberg, a peri-urban coloured community on the Cape Flats, indicated that a large portion of the adolescent sample had witnessed gangsters shooting and fighting each other, had been chased by gangsters and had personally taken part in gang activity. Many of these children also witnessed someone being shot in their home or community. Similar observations were made in Macassar, another peri-urban settlement where a significant proportion of the adolescents

surveyed, were exposed to severe interpersonal violence as witnesses, victims and both (Pietersen, 2002). Van der Merwe and Dawes' (2000) observations of school children in Lavender Hill, a settlement with high incidence of violence on the Cape Flats, concluded that these children were most likely to be exposed to violence in the vicinity of their homes and in the wider community.

Presently, the majority of violence in and around the Cape Metropole occurs within these disadvantaged coloured communities (Pietersen, 2002). Thomson (cited by Legget, 2004) indicates that coloureds are more than twice as likely to be murdered than black people (the next highest murder rate). According to the Department of Correctional Services, coloureds only represent 9% of the national population, yet they make up 18% of the national prison population (Leggett, 2004).

- **Gangsterism in the Western Cape**

In the Western Cape, during the era of apartheid, violence occurred on many levels, however, criminal violence was mostly gang-related. The persistence of gangs is a major factor contributing to the promotion of violence in communities. Sporadic fighting over territory between gangs leads to the maintenance of high levels of violence in the areas in which gangs are operant (Pinnock, 1996). The Cape Flats is the site of much of the gang activity in the Western Cape. The existence of gangs in the Western Cape is, for the most part, brought about for the supply and trade of drugs in these communities, surrounding areas and also internationally (Dissel, 1997).

The impact of gangs within communities is not only limited to increased violence and the proliferation of drugs. The culture of gangsterism tends to promote patriarchal

male constructs, a source from which boys can model their behaviour. Furthermore, this culture increases the cohesion of individuals who are in the gangs as well as those who are not. This was found by Luyt and Foster (2001) whom, in their analysis of masculine constructs among male adolescents in Western Cape schools, identified these patriarchal traits to be more prevalent in communities where gangs operated. They observed that in these areas, the male adolescents supported constructs of status, toughness and control as desired concepts to define masculinity.

The South African National Youth Risk Behaviour Survey (Reddy et al., 2003) reported that 14% of the 10 699 adolescents surveyed were members of gangs. This statistic was further extrapolated to reveal that 12.7% of the Western Cape adolescents sampled were gang members. This constituted 18.3% of the males and 8.7% of the females in the sample from the province. Van Wyk (2001) found some learners at Cloeteville Senior Secondary School in Stellenbosch were active gang members.

2.2.2 Violence in Stellenbosch

Police reports from the two police stations serving Stellenbosch and its surrounding settlements indicate that crime, particularly violent crime occurs on a regular basis in the area. The crime statistics for the district indicate a high prevalence of violence. According to the South African Police Services' Annual Report (South African Police Services, 2003), 3.5% of the national murders during the 2002/2003 financial year occurred in this district. Of the approximately 200 000 cases of assault resulting in grievous bodily harm reported nationally for the same period, 4.5% of them occurred in the Boland.

More specifically, the police report on violent crimes in Jamestown and the surrounding farming areas indicated 175 incidences of common assault, 161 incidences of assault resulting in grievous bodily harm and 20 cases of murder and attempted murder for the 2003/2004 financial year (Sergeant Vorster, personal communication, May 6, 2004). The Cloetesville police station's data indicated, during the four months of March to June 2003, there were 108 cases of common assault, 73 incidences of assault resulting in grievous bodily harm and 5 murders in the Idas Valley and Cloetesville communities (Sergeant Hendriks, personal communication, April 28, 2004).

The admission records from the Stellenbosch Hospital, the main casualty hospital for this district, emphasised the extent of violence in the area. The hospital treated 5220 patients for traumatic injuries between July 2003 and June 2004. Of these patients, the majority of the traumas was seen to be violence related, while the minority was accidental injuries (Dr J. Hill, personal communication, July 27, 2004).

From these figures, it is evident that severe violence is occurring on a large scale in this area and is indicative that all individuals from these communities are at increased risk of traumatic exposure. While exposure of all people within these communities is of concern, the effects of this exposure on the youth in the area are of major concern for the future of these communities.

2.3 Violence Involving Adolescents

Exposure of youth to community violence has been associated with externalising behaviours such as impulsivity, aggression and antisocial acts (Cooley, Turner, &

Beidel, 1995). Cairns and Cairns (1991) found that behaviour problems such as gossiping, exclusion, physical attacks, delinquent behaviour like stealing, and rape occur more frequently during adolescence. Similarly, to these observations, Govender and Killian (2001) found that exposure to community violence among poverty-stricken South African youth to be significant in the development of their observed aggressive behaviour. There have been observations that adolescents are increasingly involved in assaults relating to the use of firearms. Reddy et al. (2003) observed that 17% of adolescents at schools in South Africa had carried weapons. This supports Luyt and Foster's (2001) findings that male adolescents in the Western Cape schools subscribe to traditional notions of what it means to be a man, thus linking traits of aggression with masculinity. Furthermore, the South African survey of youth risk behaviour (Reddy et al., 2003) indicated the pervasiveness of violence in all South African communities, finding that bullying, fighting and gang membership are ubiquitous phenomena among youth.

2.4 Exposure to and Impact of Violence

Exposure to violence has been shown to have multiple effects on individuals. These effects range from trauma, psychopathology and personality disorders to antisocial behaviour. The type of response is mediated not only by variables related to the violence exposed to, but also by the numerous social and personal attributes of the community and the individual.

According to Bandura's Social Learning Model (1973), exposure to violence as a perpetrator, witness or victim is described as an impetus for further violent behaviour under socially supportive conditions. In this theory, exposure to violence has a

desensitising effect on individuals, especially youth, and observed violent behaviour is learned and acted out in future social interactions when the outcomes of such behaviour are seen as favourable. Exposure to high levels of violence is suggested to be of aetiological significance in the development of aggression in youth (Barlow & Durand 1999; Collings & Magojo, 2003; Durant, Cadenhead, Pendergrast, Slavens, & Linder, 1994; Farrel & Bruce, 1997; Gorman-Smith & Tolan, 1998; Kuther, 1999; Miller, Wasserman, Naugenbauer, Gorman-Smith, & Kamboukos, 1999; Osofsky, 1995; Schwab-Stone et al., 1995; Stavrou, 1993).

South African adolescents are reportedly exposed to high levels of violence. Cross sectional studies in rural and urban settings in South Africa indicate that the prevalence of childhood exposure to violence ranged from 67% to 95% (Seedat, Nyamai, Njenga, Vythilignum, & Stein, 2004). Ward, Flisher, Zissis, Muller, and Lombard (2001) reported that the majority of the 104 adolescents they surveyed from schools in Cape Town had been exposed to at least one type of violent event as a victim or as a witness. A recent study into exposure to traumatic events indicated that the prevalence of exposure to violence in the street, neighbourhood or school for the youth in the sample from Cape Town was found to be 58%. This level of exposure to violence consisted of 55% of the females and 60% of the males in a sample of 1140 adolescents (Seedat et al., 2004).

It has been reported that the effects of exposure to violence as a witness (co-victim) and a victim have been observed to have similar psychological and behavioural consequences (Cooley et al., 1995; Kuther, 1999). Amongst South African youth, exposure to violence both as a victim and as a witness has been shown to have a

negative impact on cognitive, emotional and social development (Collings & Magojo, 2003; Osofsky, 1995; Stevens et al., 2001). The impact of exposure to violence in the different contexts will be discussed in more detail in the following sections.

2.5 Location of Exposure to Violence

In their measurement of traumatic experiences of youth in impoverished communities in the Western Cape, Seedat, Van Nood, Vythilignum, Stein, and Kaminer (2000), found that the most traumatic experiences were the witnessing of violence in the street, neighbourhood or school. However, their study did not delineate the relative effects of the different contexts. The Ecological Model contends that the impact of violence exposure on youth is strongly mediated by the context in which the violence takes place (Bronfenbrenner, 1979; Lynch & Cicchetti, 1998). As such, a limited amount of research in South Africa has accounted for the role of the specific contexts of exposure in the determination of behavioural outcomes. This study therefore aims to develop an understanding of how context impacts on the relationship between exposure to violence and aggressive behaviour.

2.5.1 Violence experienced at home

While the home environment is supposed to provide love, affirmation, structure, guidance and guidelines for appropriate behaviour for youth, it very often falls short of these ideals. Violence experienced by children at home is often seen as a displacement of parental aggression and is strongly associated with, but not limited to, factors such as poverty, alcohol and substance abuse as well as parental exposure to violence (Angless & Shefer, 1997; Brown, 2002). The effects of domestic violence include a spectrum of mental and physical consequences. With regard to violence exposure, Van der Merwe and Dawes (2000) found that adolescents were most likely

to be exposed to violent incidents in the vicinity of the home or in the wider community.

Krug et al. (2002) argued that through witnessing violence in the home or being physically or sexually abused in the family, children and adolescents may be conditioned to regard violence as an acceptable means of resolving problems. Neglect and lack of supervision are seen to be important predictors in the development of delinquency and violence in children (Barbarin & Richter, 2001; Patterson, Reid, & Dishon, 1992; Shmukler, 1989). Youth who were found to witness violence between parents as well as being victims of physical abuse display increased aggressive and violent behaviours (Richters & Martinez, 1993; Salzinger, Feldman, Hammer, & Rosario, 1993).

Leblanc (2003) observed that when adolescents were exposed to violence at home, they were at an increased risk of being exposed to violence in the community. The effects of exposure were found by Jewkes, Levin and Penn-Kekana (2002) to not only extend across contexts, but also across the individual's lifetime. They found that childhood beatings and witnessing mothers being abused were significantly related to lifetime experiences of violence amongst women. They argued that this was due to violence being viewed as normative, thus men and women developed a tolerance toward it.

Jewkes et al. (2002) further identified that gender socialisation increases the vulnerability of females to violence within South African communities. Men and women are socialised in ways that promote roles of submissive females and dominant

males. As a consequence of this socialisation, South Africa has one of the highest reported rates of female partner abuse in the world. Between one in four and one in six relationships report abuse against the female partner (Bollen, Artz, Vetten, & Louw, 1999). Jewkes et al. (2002) explored the implications of this process in the domestic context and found that the tolerance of male-on-female violence and the male preference for the boy-child increased the risks of domestic violence for girls. The risk of domestic violence for females is further increased by gender socialisations that encourage females to spend more time in the home environment, while males exercise more freedom to spend time in different environments. Explaining this phenomenon, Krahe (2001) posits that aggressive behaviour is acquired as part of the masculine gender role in the process of socialisation. Boys are therefore more likely to externalise their distress, while girls are more likely to internalise their anguish and show passivity and restraint. Salzinger et al. (2002) observed a similar trend in their meta-analysis of male and female youth's exposure to violence. Physical abuse by parents was associated with males' aggressive behaviour during play with peers, higher peer ratings of aggression, fighting, meanness, antisocial behaviour, and higher parent and teacher ratings for aggression and externalising.

The effects of exposure to family violence appear to be buffered by factors of family and social support. Muller, Goebel-Fabbri, Diamond and Dinklage (2000) observed that the greater the adolescent's access is to these mediatory factors, the less severe the effects of exposure to violence.

In a sample of coloured youth from a community characterised by high rates of violence, Van der Merwe and Dawes (2000) indicate that poor family cohesion, lack

of rewards for prosocial behaviour and ineffective punishment of deviant behaviour were associated with their development of antisocial behaviour. Van der Hoven (2001) further identified that in the coloured communities in South Africa, the occurrence of domestic violence is associated with alcohol consumption. Thus adolescents in family environments where these factors are present can be considered to be at particular risk of experiencing or witnessing violence in their home environment. Alcohol consumption may also be responsible for a lack of parental supervision and possible neglect, factors that may diminish children's resilience to violence.

When children are not adequately supervised and/or abused at home, they may be drawn into the street and peer groups for entertainment and social support, rather than the family. Thus, a breakdown in family life has been described as a causative factor in the engagement of youth with negative influences in their communities and their subsequent involvement in gangs and crime (Segal, Pelo, & Rampa, 1999).

2.5.2 Violence experienced in the community

Barbarin and Richter (1999) contend that favourable social development takes place under social conditions where children and adolescents are able to successfully negotiate their own safety. Clearly, in communities plagued by violence this is a difficult task. In South African research in communities where violence is rife, Pietersen (2002) and Wynchank (2000) indicated that exposure to community violence is likely to have a detrimental impact on adolescents' social development. Furthermore, Du Plooy (2002) found that the stress, anxiety and fear associated with exposure to community violence might hinder the execution of normal developmental

tasks such as emotional regulation, mastery over the environment, and the ability to form relationships. Indirect exposure to community violence thus appears to be linked to negative social behaviour such as aggression, while direct exposure to this type of violence may lead to emotional disturbances associated with posttraumatic stress disorder (Lorion, 2001).

While gangs and gangsterism are not the only way in which violence is experienced in these communities, their activities are responsible for a large amount of the community violence (van Wyk, 2001). The involvement of youth in gangs is a result of multiple social factors in their communities. Youth, especially males, in impoverished communities tend to spend more time on the streets due to a lack of supervision, or as a means to escape the violence experienced at home (Dissel, 1997). Consequently, they are exposed to violence occurring on the streets, which further increases their likelihood of becoming involved in violence (Barbarin & Richter, 2001; Govender & Killian, 2001; Ramphele, 2002; Straker et al., 1996).

Van der Merwe and Dawes (2000) report that boys who were exposed to community violence displayed feelings of anger, helplessness and reduced impulse control. They further noted boys were more likely than girls to be exposed to violence as well as participate in aggressive acts due to the differential socialisation of males and females. Berkowitz (1993) proposes that in patriarchal societies males are frequently rewarded for aggressive behaviour as they grow up and as a result, they view aggression as an appropriate means to resolve conflict in most contexts.

The Ecological Model (Bronfenbrenner, 1979) is particularly useful in explaining the effects of community violence on individuals. Within the construct of this model, community violence has both a direct and an indirect effect on the individual. The direct effect is explained as the individual's personal experience with violence in his/her community, his/her participation in, or witnessing of a violent event. The indirect effect of community violence relates to the effect that the presence of violence has on the individual and the other systems in the ecosystem. An example of these indirect effects would be a heightened level of peers' regard for violence.

2.5.3 Violence experienced at school

Schools serve as an environment where children and adolescents are formally taught skills which are deemed to be useful for their functioning in society. In this highly attuned social environment, they are also taught informal lessons of social interaction. As such, the school environment can be seen as a place in which the prevailing social norms from external contexts are brought to the fore in an environment designed to promote the learning of these interactions (Sathisparsad, 2003). When the lessons being learned are constructive, the school is a powerful positive influence. This, however, is not always the case, and social problems from the community and home are often associated with creating a poor school environment in which antisocial behaviour flourishes. As proposed by the interactional level of the Ecological Model, violence in the community and the home has been shown to flow over into violence at school (Becker, 2000; Collings & Magojo, 2003; Eliasov & Frank, 2000; Fineran, Bennet, & Sacco, 2001; Pietersen, 2002; Van den Aardweg, 1987; Vally, 1999; Wynchank, 2000).

De Wet (2003) identifies both internal factors such as low self-image, frustration caused by learning or emotional problems and group pressure and external factors such as community degeneration, unemployment and poverty as major contributors to the problem of school violence. De Wet (2003) observed that educators in South African schools contend that poverty, unemployment, and drug and alcohol abuse were the most important contributors to learner violence in their schools. All of these conditions are implicitly linked to the learners' environment. In their sample of schools from the Western Cape, Biersteker and Erlank (2000) reported that gangsterism, drug abuse, assault and theft were common concerns. Concerns over similar factors were reiterated by the school authorities in the Stellenbosch district (personal communication May 20, 2004). Furthermore, research on violence in South Africa suggests that much of the violence that disadvantaged learners experience takes place within their schools (De Wet, 2003). Through their exposure to violence in the school environment, in the form of learner-on-learner violence and also teacher-on-learner violence, youth are at risk of developing psychological and social distress. This distress may be acted out in the form of aggressive behaviours (Bekker, 2000; Elliasov & Frank, 2000; Stevens et al., 2001).

One of the main objectives of teachers in schools is to exercise authority over the learners. Through this, it is hoped that teachers will become a primary source of not only formal learning but also of social learning, for learners. According to the Social Learning Theory, the establishment of teachers as an authority increases the likelihood of learners using them as models. In strained school and/or social environments, teachers are often found to resort to violence as a means of exercising their authority (Gaillard-Thurston, 2003). One form of teacher-to-learner violence is

corporal punishment. Maree (2000) found that corporal punishment of youth at school had a correlation with violent behaviour.

Becker (2000), as well as Schwartz and Gorman (2003), explored the causative link between exposure to violence and academic achievement. They reported evidence that suggests that exposure to violence results in behavioural problems and a subsequent decline in academic achievement. Poor academic achievement has also been correlated with behavioural problems (Collings & Magojo, 2003). These findings illustrate the distressing reciprocal relationship between academic achievement and violence. Olivier (2003) concurs with the conclusions about the effect of academic achievement on behavioural problems, but further emphasises the role of control and rejection on behavioural problems, particularly aggression. School size also has a mediating effect on the occurrence of violence and smaller schools have been seen to report fewer serious incidents. This is accounted for by the attention that the learners receive as well as more cohesive social groups within the schools (Maree, 2000).

Through the involvement of youth in gangs and the occurrence of gang activities (such as drug and alcohol dealing) within the schools, gang activity appears to have seeped into the school ground, bringing with it, its regard for violence. As such, schools in the Stellenbosch District have been shown to have learners who are active gang members (Maree, 2000; van Wyk, 2001).

Besides gang-related violence, Maree (2000) identifies other forms of violence occurring in South African schools such as peer rivalry and partner violence. While partner violence appears to have more severe physical consequences for females, it

has been identified as a chronic form of youth violence perpetrated by both males and females (Swart, Seedat, Stevens, & Ricardo, 2002). Another major form of violence in schools is bullying, more commonly found to occur with male school children, in which younger or smaller children are victimised (Neser, Owens, van der Merwe, & Morodi, 2004; Stevens et al., 2001).

2.6 Levels of Exposure to Violence

Besides the identification of contexts in which violence exposure takes place, Hastings and Kelley (1997) also consider the importance of different levels of violence to which adolescents are exposed. The three levels identified are: indirect violence, traumatic violence and physical/verbal abuse. Indirect violence, considered the least severe form of exposure refers to witnessing or hearing of less severe forms of interpersonal violence. Traumatic violence exposure refers to being a witness or victim of more severe experiences of victimisation, whereas physical/verbal abuse refers to threatened or actual violent harm directed at an individual. While these levels all result in some degree of trauma, it is hoped that this specification will assist in clarifying the stressor criteria for acquisition of aggressive behaviour.

According to Hastings and Kelley (1997), these different categories of violence allow for the effects of violence exposure to be understood in finer detail. Moses (1999) found that traumatic violence exposure induced stress, which was associated with depression and hostility in a sample of urban American youth. Further support for the use of these subcategories in the study of violence in low socio-economic communities comes in the form of observations suggesting that people in these

communities are more likely to experience more cumulative forms of exposure (Bell & Jenkins, 1993; Govender & Killian, 2001).

2.7 Forms of Aggression

Huesmann (1988) suggests that antisocial behaviour such as aggression is determined by multiple factors and is compounded by environmental factors. While these multiple factors are accountable in the determination of aggression, they are also seen to be responsible in the distinction of the aggressive response. Bandura (1973) identified two distinct forms of aggression, namely reactive and proactive aggression. Geen (2001) further posits that the form of the aggressive response may be hostile or instrumental and is mediated by social cues and the cognitive state of the individual.

Reactive aggression is an angry or defensive response to frustration or provocation. It has its roots in the frustration-aggression model. Aggression of this type is seen to result from perceived or actual frustrations encountered in different circumstances.

While the frustration-aggression model fails to account for all forms of aggression and all consequences of frustrations (Baron & Byrne, 2000), it is considered to be suitable to explain reactive aggression.

Proactive aggression is viewed as a deliberate behaviour that is controlled by external reinforcements. Essentially, proactive aggression is seen as a goal orientated action, it is performed in order to gain access to a diverse array of perceived rewards ranging from the tangible to the non-tangible gains. Individuals learn through their interactions that in order to gain these rewards they are required to act in certain,

aggressive ways. The roots of proactive aggression are thus found in social learning theory formulations of aggression (Bandura, 1973).

Goldstein (2003) maintains that much of human aggression occurs as a group process that is not only dependant on individual factors, but also on situational cues. Through these explanations of the phenomenon of aggression, Goldstein (2003) contends that in circumstances where groups are behaving in an aggressive manner, individual beliefs and values become secondary to those of the group. Thus in explaining levels of aggression, it is important to consider the social interactions and regard for aggression in the individual's context as well as the personal factors of the individual.

2.7.1 Gender Differences

Explanations for gender differences with regard to aggression are essentially derived from biological and social postulations. The interactions of these two determinants on the level of the individual appear to be responsible for the observed aggression differences within youth. Biological arguments centre on the male hormone, testosterone, as a catalyst for male aggression.

Males have been shown to react to violence exposure by engaging in externalising behaviour whereas females show more internalised effects of violence exposure. As a result, males have been found to display behaviours such as physical aggression where females are increasingly likely to be hostile or display verbal and indirect aggressive strategies (Farell & Bruce, 1997; Muller, 2002; Olivier, 2003).

Furthermore, Björkvist and Niemelä (1992) and Geen (2001) found that girls in

general are more likely to engage in forms of relational aggression, which were more indirect than those of males. This involves excluding others and spreading gossip.

Males are found to be more likely to be involved in peer groups that promote the use of violence (Garbarino, 1999; Legget, 2003). These peer groups do this through the rewarding, or acknowledging these acts of violence or physical aggression (Goldstein, 2003). Furthermore, gender socialisation exists in most communities in which individuals are expected to ascribe to set gender roles. Through their gender socialisation, males are expected to engage in activities which exert their dominance and portray their authority, while females are expected to be passive (Björkqvist & Niemelä, 1992).

2.8 Considerations for the Sample

As the sample consists of male and female learners who are in the adolescent stage of development, it is important that consideration of their developmental stage be made, as well as understanding their different gender roles and socialisation. These variables have been shown to impact on violence and aggression and will help in understanding the nature of the relationship within the sample.

2.8.1 Adolescents and Developmental Challenges

The term adolescent derives from the Latin *adolescere*, which literally translates to “growing into” adulthood. As the name suggests, this is a period in which individuals are still growing and developing, not only physically, but also mentally and emotionally (Gouws & Kruger, 1994; Myers, 1998).

Adolescence is characterised by the developmental stage of searching for a personal self-concept and identity. This phase of an individual's life is one of "identity versus identity confusion" thus emphasising the impressionability and exploratory nature of this period (Slavin, 1994). This period is critical in the development of personality and as such carries with it, long term implications for the individual and society.

Olivier (2003) contends that these developmental challenges as well as other factors from the individual's environment contribute to the fertility of this period as one of tension and frustration.

This tension and frustration can eventually be expressed in some form of aggression. In their review of literature, Howard and Jenson (1999) cautioned that youths who exhibit aggressive behaviour in adolescence are at a substantial risk of continuing this behaviour into adulthood. Pietersen (2002) found that older adolescents were more prone to being exposed to higher levels of violence. This is reflective of their increased independence as well as their exploration of new roles. These adolescents are more likely to look outside the family environment for sources of stimulation and belonging, they are thus faced with increased exposure to the pervasive community environment. Peer interactions are also a significant source of social learning during this period and adolescents strive for recognition within these groups and are therefore likely to be submissive to the perceived group norms (Goldstein, 2003).

2.9 Conclusion

The literature indicates that violence is a major public health concern that can potentially negate human potential through the creation of an environment in which individuals and communities are incapable of healthy functioning. Furthermore, in communities that are characterised by high levels of interpersonal violence, individuals in the community, particularly youth are at increased risk of becoming violent themselves. The extent of this socialisation of youth into violent lifestyles appears to be not only dependent on their levels of exposure to violence but also on their socialised gender roles. The observation of considerably high levels of violence within South Africa makes it critical to address the issue of violence so as to understand how violence impacts on the lives of individuals and communities within this country.

2.10 Hypotheses

From the afore-going literature review the following hypotheses were postulated to understand adolescents' exposure to violence and aggressive behaviour:

- There will be a significant positive correlation between exposure to violence (total) and aggression (physical, verbal, anger and hostility).
- There will be a significant positive correlation between exposure to traumatic violence and aggression (physical, verbal, anger and hostility).
- There will be a significant positive correlation between exposure to indirect violence and aggression (physical, verbal, anger and hostility).
- There will be a significant positive correlation between physical or verbal abuse and aggression (physical, verbal, anger and hostility).
- Exposure to violence in the community will be significantly correlated with aggression (physical, verbal, anger and hostility).
- Exposure to violence in the home will be significantly correlated with aggression (physical, verbal, anger and hostility).
- Exposure to violence in school will be significantly correlated with aggression (physical, verbal, anger and hostility).
- Males will be significantly more exposed to violence than females.
- Males will report significantly more aggression than females.
- Males will show a stronger positive correlation between exposure to violence and self-reported aggression than females.

3. METHODOLOGY

This study was a cross-sectional study in which a convenience sample of school learners between the ages of 13 and 18 was asked to fill out a questionnaire consisting of the two scales described below. The quantitative data from the sample was then entered into Statistica and analysed.

This design was used to access a large sample with as little disruption to the learners' curriculum as possible. Collecting data from a large sample was deemed necessary in order to increase the validity of the observations in the sample and allow them to be more readily generalised to the population from which the sample was drawn.

3.1 Sample

The sample consisted of 437 learners from three co-educational schools in the Stellenbosch District, namely, Stellenzicht Senior Secondary School, Cloeteville Senior Secondary School and Lückhoff High School. The learners at these schools are primarily from the mid-to-low socio-economic coloured communities in and around Stellenbosch, namely Jamestown, Cloeteville and Idas Valley. Participants were conveniently selected with the assistance of the school authorities at the respective schools. Eleven questionnaires were insufficiently filled out and were thus rejected leaving the final sample count at 426.

The age group of the sample from this study covered the period of mid-adolescence and consisted of a sample of grade 8-11 learners from each of the three schools.

Access to the grade 12 learners was not possible, due to their preparations for their final exams. This age group was targeted on account of this period of youth being

associated with social identity formation and particularly gender socialisation. It affords one the opportunity to determine whether exposure to violence influences expressions of violence and aggression.

The number of learners from each school varied according to school size and accessibility of the learners to the researcher. Accessibility of the learners was dependent on the school curriculum and the individual school authorities' willingness to participate in the research. At these schools, where issues around violence are a pressing concern, the school authorities were willing to assist the researcher without compromising the learners' curriculum. In order to be as unobtrusive as possible the research took place at times that were convenient for the school.

As can be seen from Table 1, the final sample consisted of 187 male and 239 female participants (N=426) from the three schools. The number of learners number of learners from each school were as follows: Stellenzicht Senior Secondary School, (n=111); Cloeteville Senior Secondary School (n=127); and Lückhoff High School, (n=188).

Table 1
Demographic Information of the Respondents (N = 426)

Variable	Response categories	n	Percentage (%)
School	Stellenzicht	111	26.1
	Cloetesville	127	29.8
	Lückhoff	188	44.1
Gender	Male	187	43.9
	Female	239	56.1
Grade	8	4	.9
	9	96	22.5
	10	187	43.9
	11	139	32.6
Age	13	8	1.9
	14	44	10.3
	15	95	2.1
	16	153	35.9
	17	86	20.2
	18	40	9.4
Caretaker(s) with whom adolescents live	Both parents	267	62.7
	Mother	95	22.3
	Father	8	1.9
	Guardian	56	13.1
Work status of parent/guardian	Employed	396	93.0
	Unemployed	30	7.0
Type of housing	House	381	89.4
	Flat	23	5.4
	Room	7	1.6
	Wendy house	15	3.5
Number of people in household	2	4	.9
	3	33	7.7
	4	93	21.8
	5	130	30.5
	6	76	17.8
	7	43	10.1
	8	21	4.9
	9	12	2.8
	>10	14	3.3
Participate in extra-mural activities	Yes	219	51.4
	No	207	48.6

Whilst the sample was not exhaustive, it was large enough to be deemed representative of the population of coloured school-going adolescents within the Stellenbosch District. During the administration of the questionnaires, it was encouraging to see the attentiveness with which the learners completed the questionnaire.

Demographic variables considered to be the most important in determining the representativeness of the sample are those that can be correlated with existing data for the population, or related populations. As such, data on the specific population was hard to come by, but the variables of gender-ratio as well as that of unemployment within the sample could be compared to the estimates of these variables in other studies.

The ratio of females to males in this sample (1.23:1) was very similar to the ratio observed for schools in the Western Cape in the Survey for Youth Risk Behaviour (1.28:1) (Reddy et al., 2002). The sample was thus considered to be representative of the school going population with regard to gender make-up. While this was not a crucial variable, it enables the results of the correlations and prevalence to be more accurately generalised back to the population.

An interesting observation was that only 7% of participants indicated that their parents or guardians were unemployed. This is considerably lower and dissimilar that the findings from the 2001 Census of the District that report an official unemployment rate of between 15.2 and 19.1% within the coloured communities in the Stellenbosch District (Statistics South Africa, 2004). This discrepancy may be accounted for by a

few considerations regarding the context of the sample. The first consideration is the possibility that learners may have under-reported due to the stigma associated with unemployment. In this argument, the learners may be trying to hide their shame by not acknowledging the financial situation of their family. Another scenario is that adolescents with unemployed parents or caregivers would likely be trying to support themselves and their families rather than stay in school. Furthermore, it is likely that the parents/caregivers are possibly engaged in informal economic activities and as such are not regarded as being formally unemployed.

3.2 Questionnaire

Data was gathered through the once-off administration of a structured questionnaire to the sample. The demographic section, measuring categorical demographic information, was included so as to describe the sample. The main questionnaire consisted of two previously developed measures that measured exposure to violence and levels of self-reported aggression by participants.

3.2.1 Demographic section

The demographic information gathered included data pertaining to age, gender and grade. Information regarding the living conditions of the participants was also asked for in this section of the questionnaire. This information included information on who the caretaker of the participant was, whether they were employed or not, type of housing and the number of people occupying the residence. In order to further describe the sample, a supplementary item in the demographic section enquired whether or not the learner participated in extra-mural activities. This item gave an indication of how the individual spent his/her time as well as illustrating the

individual's participation in pro-social activities. The observations of the sample gained from this questionnaire are presented in Table 1.

3.2.2 Screen for Adolescent Violence Exposure (SAVE)

The revised version of the self-report Screen for Adolescent Violence Exposure (SAVE) (Hastings & Kelley, 1997) was used to measure the level of exposure to violence within the three contexts of home, school and the community. The scale has been previously standardised for school children between the age of 11 and 18, from a sample of urban African-American inner city youths. The SAVE was utilised for this study because it was designed to offer a socially valid measure of violence experienced by adolescents in the three settings. Furthermore, the scale's ability to distinguish between the different settings of violence exposure while at the same time showing high test-retest reliability data (see below) motivated the use of the SAVE in this study. The psychometric properties of the SAVE are more appropriate to the adolescents in this sample because they were generated from participants living in high-crime neighbourhoods. Furthermore, the scale was also developed so that it could be easily administered to poor readers, a facet that increases its validity in low-socio-economic communities (Hastings & Kelley, 1997).

In its administration amongst urban African American adolescents, the SAVE was found to have Alpha coefficients relating to internal consistency ranging from .65 to .95. Cronbach Alpha for the setting scales ranged from .90 to .94. Intercorrelations between subscales ranged from .19 to .93. Acceptable test-retest coefficients have been obtained for the frequency subscales, ranging from .53 to .92. Discriminate

analyses showed that the scale is useful in classifying high and low exposure to violence amongst participants (Hastings & Kelley, 1997).

The revised version of the scale used consisted of 32 items measuring indirect violence (14 items), traumatic violence (12 items), and physical/verbal abuse (6 items) on a 5-point Likert-scale (1 – 5). Each item required that the learner indicate where and to what extent they had experienced the particular form of exposure. The choices of response range from “never” (=1) to “almost always” (=5). Aggregate scores could potentially range from 32 – 160 for each of the three contexts, higher scores being indicative of a higher level of exposure to violence.

It was found that for most of the subscales of the SAVE the means of the sample were low (see Table 6). Using the mean as an indication of high and low scores thus had limited validity. Therefore, in order to distinguish between high and low scores in this study, a cut-off point based on the responses to the items in the questionnaire was used for each of the subscales. These cut-off points were determined through inspection of the response options; individuals responding to the majority of the items with “often”, “very often” or “almost always” were classified as being exposed to high levels of violence. Thus, individuals who scored 3, 4 or 5 for the majority of the items in a subscale were grouped as being exposed to high levels of violence. Table 2 indicates the number of items for each of the subscales and the relevant cut-off scores using this descriptive procedure.

Table 2*Subscales and High and Low Score Ranges for the SAVE*

Scale	Context	Number of Items	Low Score	High Score
Indirect Exposure	Home	14	<28	≥28
	School	14	<28	≥28
	Community	14	<28	≥28
	Total	42	<84	≥84
Traumatic Exposure	Home	12	<24	≥24
	School	12	<24	≥24
	Community	12	<24	≥24
	Total	36	<72	≥72
Physical\Verbal Abuse	Home	6	<12	≥12
	School	6	<12	≥12
	Community	6	<12	≥12
	Total	18	<36	≥36
Total Score	Home	32	<64	≥64
	School	32	<64	≥64
	Community	32	<64	≥64
	Total	96	<192	≥192

Furthermore, it can be seen that Table 2 indicates the breakdown of the instrument into its subscales. The three levels of violence exposure measured by the scale (traumatic violence, indirect violence and physical/verbal abuse) reportedly encompass facets of adolescent exposure to actual violence within their immediate environment. Exposure to indirect violence entailed being a witness to or being informed of what was considered to be less severe interpersonal violence. Traumatic violence exposure was concerned with being a witness or victim of more severe victimisation experiences. Finally, physical and/or verbal abuse refers to threatened or actual violent harm directed at the respondent.

- **Internal consistency**

In conducting this study, it was important to assess the appropriateness of the use of the SAVE in collecting data from the sample. While the discriminatory power of the scale for this sample was found to be questionable through the observation of the low means, measures of internal consistency were taken in order to further evaluate the scale.

The internal consistency of the scale and its pre-defined subscales were determined through the calculation of the scales' Cronbach's alphas. For subscales of the SAVE with more than 10 items, Guttman's split-half reliability tests were conducted. This process randomly splits the subscale into two halves. Correlations within the halves and then between the halves are then calculated in order to determine the internal consistency of the total subscales. For the scales with fewer items, the correlation between all the items was calculated. The SAVE's total internal consistency and those of the forms of exposure were calculated from the correlations between the contexts. The results of the internal consistency measures are shown in Table 3.

Daniel (1978) considered that Cronbach alpha's of greater than 0.50 indicated acceptable levels of internal consistency, with higher scores being associated with more reliable scales. Therefore, in its use with the sample of learners from the study, the observed internal consistency for the SAVE and its subscales indicate that, in this regard, the SAVE functioned as an appropriate assessment tool. It must, however, be emphasised that this instrument did not show high powers of distinction, a property which was alluded to by the low mean scores for the sample (Daniel, 1978).

Table 3*Measures of Internal Consistency for the SAVE and its Subscales.*

Scale	Context	Alphas
Indirect Exposure	Home	.86
	School	.83
	Community	.90
	Total	.78
Traumatic Exposure	Home	.74
	School	.65
	Community	.86
	Total	.76
Physical\Verbal Abuse	Home	.54
	School	.52
	Community	.70
	Total	.75
Total Score	Home	.64
	School	.62
	Community	.67
	Total	.83

3.2.3 Aggression Questionnaire (AQ)

A revised version of the Aggression Questionnaire (AQ) (Buss & Perry, 1992) was used to measure the level of self-reported aggressive tendencies along four factors. These four factors along which aggression was measured were physical aggression (8 items), verbal aggression (5 items), anger (9 items) and hostility (8 items). The original scale consisted of 29 items, however, for this study the item “I flare up quickly but get over it quickly” was split into two items; “I flare up quickly” and “when I get cross, I get over it quickly”, bringing the number of items up to 30. This was done in order to make the item more specific. The 30 items in the revised scale measure aggression on a 4-point Likert-scale (1 – 4) in which higher scores indicate

higher levels of aggression. The learner responds by giving an indication of the frequency of which the aggressive responses in the questionnaire are representative of themselves.

Self-reporting of aggressive tendencies has been illustrated as a reliable means of obtaining such data that may not be observable to others. Baldry and Winkel (2004) maintain that this means of data collection is reliable among adolescents when issues of confidentiality are addressed. The response options for the AQ range from “never” to “always”. For the items “I am a person who it is easy to get along with” and “I can’t think of a good reason to hit someone” responses of “never” and “always” were reverse scored and gained between 4 points and 1 point respectively. Whereas, for the rest of the items, a response of “never” gained 1 point, responding with “always” gained 4 points and the other responses gaining 2 or 3 points respectively. Scores for the whole scale range from 30–120; a higher score indicates a higher level of aggression.

Again, the mean scores for the subscales were considered to be low for the sample (see Table 9) and the use of cut-off points was once again employed to describe individuals who reported high levels of aggression. Individuals considered having high scores were those who responded to the majority of items with “often” and “always”. Table 4 shows the breakdown of items in the subscales of the AQ as well as the cut-offs used to represent high and low scores of aggression for each of the subscales.

Table 4*Subscales and High Score Ranges for the AQ.*

Scale	Number of Items	Low Score	High Score
Physical Aggression	8	<16	≥16
Verbal Aggression	5	<10	≥10
Anger	9	<18	≥18
Hostility	8	<16	≥16
Total Score AQ	30	<60	≥60

The AQ was developed to be an appropriate assessment tool within low-income communities. The questionnaire has been standardised for school children between the age of 9 and 18. In the initial development of the scale, Buss and Perry (1992) reported an alpha of .89 for the total scale. Cronbach alphas for the factors of aggression measured range between .71 and .95. The internal consistency of the subscales was shown to range between .72 and .85. Test-retest reliability for the instrument was .80.

- **Internal consistency**

In conducting this study, it was important to assess the appropriateness of the use of the AQ in collecting data from the sample. While the discriminatory power of the scale for this sample was found to be questionable through the observation of the low means, measures of internal consistency of the scale and its pre-defined subscales were taken in order to further evaluate the scale.

In its use with the sample of learners from this study, the observed internal consistency for the scale and its subscales indicate that the AQ functioned as an

appropriate assessment tool in this regard. Table 5 gives the measures of internal consistency obtained from the study for the AQ and its subscales.

Table 5

Measures of Internal Consistency for the AQ and its Subscales.

Scale	Cronbach's Alpha
Physical Aggression	.59
Verbal Aggression	.57
Anger	.51
Hostility	.56
Total Scale	.66

While Table 5 demonstrates that the internal consistency of the AQ and its subscales was adequate, the low Cronbach's alphas for the subscales illustrate that the questionnaire could be further refined to be more appropriate to a sample such as the present one.

3.2.4 Structure of Questionnaire

The structure of the questionnaire was an important consideration, as it was essential that the learners could understand and complete the questionnaire in as accurate a manner as possible. It was also important that the researcher could score the questionnaire accurately.

The questionnaire was compiled from the two scales and the aforementioned biographical information. Instructions on the questionnaire explained to the participants how to answer the items as well as informing them of the anonymity of

the information gathered. The ranges of possible answers to each item were placed in a grid next to the corresponding item.

Due to the sample being predominantly Afrikaans speaking, the questionnaire was translated into Afrikaans to meet the needs of the learners. Once the Afrikaans version had been compiled, a teacher at Stellenzicht Senior Secondary School proof read it to ensure that the instructions and the response formats would be clearly understood by the participants proofread it. The preliminary questionnaire was then administered to a sample of four learners from the same school to determine if there were any problems with the instructions, response formats or the sensitivity of the items. This sample also served as a yardstick to estimate how long it would take learners to complete the questionnaire.

It was estimated that the questionnaires should take about 45 minutes for the learners to complete. As such, an hour was set aside for administration and debriefing at each of the schools. This proved to be ample time for all the phases involved in administration of the questionnaires.

3.3 Procedure

In order to access and collect data from the sample, this study was conducted in a considerate and ethical manner.

Permission to conduct the research within the schools in Stellenbosch was sought through a formal application to the Western Cape Education Department. Once this application was submitted and permission to approach the schools granted,

appointments were made with the principals of each of the relevant schools. At these meetings, the principals granted permission for the research to be conducted during the second academic term in May. Practical issues such as the sampling and the times of administration were also clarified. The final level of permission to conduct the research came from the students themselves. They were informed that their participation was voluntary and that they did not have to complete the questionnaires if they did not want to.

Research assistants were used to help administer the questionnaires at the schools. These assistants were briefed as to the importance of the study and given a protocol to follow during the administration of the questionnaires to the learners, thereby ensuring the standardisation of administration. The assistants were also asked to take note of any observations they made during the administration of the questionnaires. On the mornings in which the questionnaires were administered, the groups from each school were divided into manageable classes of approximately 25 and the research assistant briefly described the purpose of the research to the group. The instructions were clearly explained to the learners prior to handing out the questionnaires. Participants were asked to answer the questions as truthfully as possible and it was explained that there were no right or wrong answers. It was also stressed that the questionnaire is anonymous, ensuring the confidentiality of answers. Upon completion of the questionnaires, the participants were encouraged to check over their questionnaires to ensure that all items were answered. They then handed in the completed questionnaires and an informal discussion took place in which participants were invited to comment on their experience with the questionnaire and their perceptions of violence and aggression. This informal discussion served both as a

debriefing for the participants and as a means for the researcher to understand the context of their experiences more clearly.

3.3.1 Recording of Data and Statistical Procedures

Once the questionnaires were marked and scored, a data file was created in Statistica from where the statistical procedures were run in order to test the hypotheses. The results from the demographic section were categorically totalled up in order to describe the demographic variables present in the sample. The results of the questionnaire provided descriptive data for the experience of exposure to violence and aggression within the sample. This descriptive data included measures of the mean, median, mode and standard deviation for each of the questionnaires and their subscales. A further descriptive procedure was devised in this study in order to explain the levels of exposure to violence and levels of self-reported aggression for the individuals from the sample using cut-off scores. This described the sample in groups according to their scores being considered either high or low for each of the variables of exposure to violence and aggression.

Comparisons between genders were made using analysis of variance (ANOVA). In the ANOVA, the male scores were compared with the female scores to determine whether the variation in scores could be accountable for a significant gender influence. Correlations were determined between exposure to violence and aggressive behaviour in order to determine whether there were significant relationships between the variables.

A 5% significance level ($p < .05$) was used as the parameter to determine significant differences for the ANOVA and the correlational analyses. In order to further distinguish significance at a more stringent level, those comparisons recording a 1% significance level ($p < .01$) were also indicated.

4. RESULTS

The following section presents the results of the study, indicating the significant observations. Tables 6 to 14 present the findings of the questionnaires according to the hypotheses. Tables 6 and 7 present the results for exposure to violence, indicating the prevalence of exposure for the sample and individuals within the sample, while Tables 8 and 9 indicate the levels of self-reported aggression for the sample and individuals within the sample. Table 10 shows the correlations between exposure to violence and aggression for the scales of the SAVE and the AQ respectively. Tables 11 and 12 show the gender differences with regard to the scores for exposure to violence and self-reported aggression respectively. Finally, Tables 13 and 14 show the effect of gender on these correlations. The significant results from the observations of the effect of gender on the relationship between exposure to violence and aggression are shown in Table 14.

4.1 Exposure to violence

The results of the sample's exposure to violence are summarised in Tables 6 and 7. Table 6 displays the minimum, maximum, median (*Med*), mean (*M*) and standard deviation (*S.D.*) of the subscales of the SAVE so that the prevalence of exposure to violence within the group can be determined. Exposure to violence was described in the three forms of exposure (indirect exposure, traumatic exposure and physical/verbal abuse), which were considered in the three contexts of home, school and the general community. A total exposure figure was also calculated to give an indication of the overall exposure to violence that the sample experienced. Table 6

displays the observed exposure to violence within the sample, with a view to understand the extent of the violence experienced by the sample.

Table 6

Descriptive Results for the Scores Obtained for the Screen for Adolescent Violence Exposure

Types of exposure	Context	Minimum	Maximum	Med	Mean (<i>M</i>)	S.D.
Indirect Violence	Home	14.00	66.00	24	26.92	11.02
	School	14.00	57.00	23	24.35	7.72
	Community	14.00	69.00	35	36.65	13.57
	Total	44.00	189.00	82	87.92	27.63
Physical\Verbal Abuse	Home	6.00	19.00	7	8.23	2.19
	School	6.00	18.00	7	7.68	1.94
	Community	6.00	26.00	8	7.78	2.71
	Total	18.00	57.00	22	23.69	5.69
Traumatic Violence	Home	12.00	34.00	13	15.03	4.24
	School	12.00	36.00	13	14.19	3.16
	Community	12.00	54.00	16	18.39	6.82
	Total	36.00	97.00	43	47.61	12.23
Total Exposure	Home	32.00	106.00	45	50.18	15.83
	School	32.00	98.00	44	46.22	11.18
	Community	32.00	139.00	59	62.83	20.75
	Total	99.00	286.00	150	159.22	41.33

The use of a questionnaire for the data gathering procedure consequently produced data, which was considered to be non-parametric (Dr Martin Kidd, personal communication, November 17, 2004). The correlational analyses on the subsequent non-parametric data were conducted with the use of Spearman's Correlations for Ranked Data (r_s) (Daniel, 1978). Further correlational analysis was used to determine

the mediatory influence of gender by analysing the strength of the correlations for each of the genders in turn.

Table 7 displays the percentage of scores above and below what is considered to be the cut-off (from Table 2) for the determination of high scores with regard to exposure to violence. Scores regarded as high scores, are those that fall above the cut-off for the scale in each of the cases. The use of the cut-off score was aimed at describing the individual cases of exposure to violence.

Table 7

Percentage of High and Low Scores for the Scores Obtained for the Screen for Adolescent Violence Exposure

Type of exposure	Context	Cut-off	% Low	% High
Indirect Violence	Home	28	62.7	37.3
	School	28	76.5	23.5
	Community	28	32.6	67.4
	Total	84	52.8	47.2
Physical\Verbal Abuse	Home	12	95.1	4.8
	School	12	96.5	3.5
	Community	12	94.1	5.9
	Total	36	95.8	4.2
Traumatic Violence	Home	24	94.8	5.2
	School	24	98.4	1.6
	Community	24	85.2	14.8
	Total	72	94.4	5.6
Total Exposure	Home	64	83.8	16.2
	School	64	92.0	8.0
	Community	64	59.9	40.1
	Total	192	79.8	20.2

Table 7 shows that **indirect violence experienced in the community** was found to be high for the majority (67.4%) of individuals in the sample. Other subscales in which a large number of individuals were found to be exposed to high levels of violence were **total indirect violence exposure** and **total exposure within the community** where 47.2% and 40.1% of the sample scored above the cut-off respectively, indicating “often”, “very often” and “almost always” endorsements of the items.

4.2 Self-Reported Aggression

The results indicating the levels of aggression for the sample are summarised in Tables 8 and 9. Table 8 shows the minimum, maximum, median (*Med*) mean (*M*) and standard deviation of the subscales of the AQ indicating the prevalence of these aggressive characteristics within the group. Table 9 shows the cut-off as well as the percentage of scores above and below this score with regard to aggressive characteristics. Scores regarded as high scores are those that fall above the midpoint of the scale in each of the cases.

Levels of aggression were described for the four subscales of the AQ, namely: physical aggression, verbal aggression, anger and hostility, as well as a total score for aggression. Table 8 displays the observed levels of aggression within the sample, with a view to understanding understand the levels of aggression amongst the whole sample of learners.

Table 8*Descriptive Statistics for the Scores Obtained for the Aggression Questionnaire*

Scale	Minimum	Maximum	Med	Mean (M)	S.D.
Physical Aggression	8.00	28.00	16	16.66	3.71
Verbal Aggression	5.00	20.00	11	11.13	2.69
Anger	10.00	29.00	17	17.84	3.73
Hostility	10.00	28.00	18	17.85	3.39
Total Score AQ	38.00	89.00	60	60.97	9.88

From Table 8, it can be seen that the sample displayed high levels of **physical aggression, verbal aggression, hostility and total aggression.**

To further explain the levels of aggression reported by individuals in the sample, high and low levels of aggression were calculated according to the cut-off scores (from Table 4). Thus Table 9 shows the cut-off scores and the percentage of cases that were above and below this score for the AQ and its subscales.

Table 9*Percentage High and Low Scores for the Scores Obtained for the Aggression Questionnaire*

Scale	Cut-off	% Low	% High
Physical Aggression	16	41.5	58.5
Verbal Aggression	10	28.2	71.8
Anger	18	53.1	46.9
Hostility	16	25.1	74.9
Total Score AQ	60	48.4	51.6

From Table 9, it can be seen that the levels of aggression measured in the sample were high for the majority of the sample with regard to **physical aggression, verbal aggression, hostility and total aggression.**

4.3 Correlations

The results showing the nature and significance of the correlations between the scores for the subscales of the AQ and the SAVE are presented in Table 10. Due to the data being gathered through the use of a questionnaire which ranked the data, thereby providing a non-parametric data set, the subsequent correlations were calculated using Spearman's correlation coefficient for ranked data (r_s).

Table 10

Spearman's Rank Order Correlation Coefficient (r_s) between Exposure to Violence and Aggression (N=426)

Type of Exposure	Context	Aggression				
		Physical aggression	Verbal aggression	Anger	Hostility	Total
Indirect Violence	Home	.28**	.15**	.21**	.19**	.31**
	School	.31**	.23**	.16**	.17**	.30**
	Community	.27**	.18**	.18**	.12*	.26**
	Total	.33**	.21**	.21**	.18*	.33**
Physical/Verbal Abuse	Home	.17**	.15**	.18**	.17**	.28**
	School	.22**	.23**	.15**	.22**	.27**
	Community	.32**	.24**	.25**	.19**	.25**
	Total	.29**	.26**	.26**	.27**	.31**
Traumatic Violence	Home	.29**	.12*	.21**	.13**	.22**
	School	.29**	.18**	.18**	.12*	.28**
	Community	.32**	.16**	.20**	.05	.35**
	Total	.36**	.18**	.22**	.11*	.37**
Total Exposure	Home	.30**	.16**	.22**	.19**	.33**
	School	.34**	.25**	.18**	.20**	.33**
	Community	.32**	.19**	.21**	.11*	.29**
	Total	.19**	.22**	.36**	.23**	.36**

* $p < 0.05$

** $p < 0.01$

The results of the correlational analysis between exposure to violence and aggression indicate that there was a significant **positive correlation** in most instances. The results of the significant correlations indicated that r_s varied between .11 and .37. In order to determine the magnitude of the effect of the exposure to violence on the aggression levels of the community the r_s^2 values were calculated to lie between .002 and .129 indicating that exposure to the different types and contexts of violence accounts for between 0.2% and 12.9% of the various aggressive responses.

4.4 Gender Differences

Gender differences with regard to exposure to violence were calculated using analysis of variance (ANOVA) in which the scores obtained for the male respondents on the SAVE were compared to the corresponding scores from the female respondents in the sample. Table 11 displays the results of the analyses of gender differences with regard to exposure to violence.

Table 11

Means and Results of Analysis of Variance for Gender Differences Regarding Exposure to Violence in Different Settings

Type of exposure	Context	Mean Score		<i>F</i>	<i>p</i>
		Males	Females		
Indirect Violence	Home	26.91	26.93	0.00	.98
	School	25.06	23.79	2.86	.09
	Community	36.84	38.51	0.06	.80
	Total	88.80	87.23	0.34	.56
Physical/Verbal Abuse	Home	7.96	8.44	5.01	.03*
	School	7.84	7.56	2.20	.14
	Community	8.04	7.58	3.07	.08
	Total	23.84	23.57	0.23	.63
Traumatic Violence	Home	15.32	14.80	1.58	.21
	School	14.79	13.73	12.26	.01**
	Community	19.63	17.42	11.35	.01**
	Total	49.74	45.94	10.36	.00**
Total Exposure	Home	50.19	50.17	0.00	.99
	School	47.69	45.07	5.82	.02*
	Community	64.51	61.51	2.21	.14
	Total	162.39	156.74	1.96	.16

* $p < 0.05$

** $p < 0.01$

According to Table 11, males and females vary with regard to the type and context of exposure to violence in the following instances:

Females were exposed to significantly **higher** levels of **physical/verbal abuse at home** than males ($F(1,424) = 5.01, p = .03$).

Males were exposed to significantly **higher** levels of **traumatic violence at school** than females ($F(1,424) = 12.26, p = .01$).

Males were exposed to significantly **higher** levels of **traumatic violence in the community** than females ($F(1,424) = 11.35, p = .01$).

Males were exposed to significantly **higher** levels of **traumatic violence in total** than females ($F(1,424) = 10.36, p = .00$).

Males were exposed to significantly **higher** levels of **total violence at school** than females ($F(1,424) = 5.82, p = .02$).

Gender differences with regard to levels of aggression were calculated using analysis of variance (ANOVA) in which the scores obtained for the males on the AQ were compared to the corresponding scores from the females in the sample. Table 12 displays the results of the analyses of gender differences with regard to levels of aggression.

Table 12

Means and Results of Analyses of Variance for Gender Differences Regarding Aggression

Form of Aggression	Mean Score		<i>F</i>	<i>P</i>
	Males	Females		
Physical Aggression	17.60	15.93	22.07	< .01**
Verbal Aggression	11.02	11.22	0.57	.45
Anger	17.66	17.99	0.78	.38
Hostility	17.08	18.45	17.79	< .01**
Total	63.36	63.59	0.06	.81

** $p < 0.01$

According to Table 12, males and females varied in the type of aggression they displayed in the following manner:

Males showed a significantly **higher** incidence of **physical aggression** than females ($F(1,424) = 22.07, p < .01$).

Females showed a significantly **higher** incidence of **hostility** than males

($F(1,424) = 17.79, p < .01$).

Further correlation results were calculated in order to determine whether gender had an impact on the relationship between exposure to violence and aggression. In order to assess the influence of gender, the sample was split into males and females before the correlation was run. This produced two different correlation results, one for each gender, shown in Table 13.

The difference between the two correlation scores were analysed in Statistica to determine whether or not they were significantly different. The calculation took into consideration the size of the difference between the correlation scores as well as the sample sizes for each gender. A significant result implied that there was a gender effect on the relationship between the variables. Due to the small differences, the significance of these differences was measured at the 5% significance level. Table 14 indicates the cases in which there was a significant gender effect.

Table 13

Spearman's Rank Order Correlation Coefficients (r_s) for Exposure to Violence and Aggression According to Gender Groups (male=187, female=239).

Exposure	Context	Aggression									
		Physical aggression		Verbal aggression		Anger		Hostility		Total	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Indirect Violence	Home	.30**	.27**	.26**	.09	.29**	.15*	.25**	.17*	.39**	.27**
	School	.26**	.31**	.29**	.20**	.13	.18**	.20**	.20**	.28**	.32**
	Community	.33**	.24**	.27**	.13	.17*	.18**	.18*	.08	.32**	.21**
	Total	.37**	.30**	.32**	.15*	.24**	.20**	.25**	.16*	.41**	.29**
Physical/Verbal Abuse	Home	.17*	.20**	.21**	.07	.10	.18**	.13	.16*	.22**	.21**
	School	.20**	.20**	.30**	.19**	.07	.24**	.26**	.24**	.27**	.29**
	Community	.31**	.31**	.30**	.21**	.21**	.30**	.22**	.21**	.37**	.34**
	Total	.28**	.30**	.35**	.19**	.19**	.31**	.28**	.27**	.38**	.36**
Traumatic Violence	Home	.27**	.30**	.19**	.07	.24**	.18**	.20**	.10	.33**	.24**
	School	.33**	.21**	.20**	.20**	.17**	.21**	.19**	.12	.30**	.25**
	Community	.37**	.24**	.25**	.13*	.21**	.22**	.18*	.02	.35**	.21**
	Total	.39**	.31**	.27**	.16*	.23**	.25**	.24**	.09	.39**	.29**
Total Exposure	Home	.31**	.29**	.26**	.10	.29**	.18**	.26**	.17**	.40**	.28**
	School	.32**	.31**	.31**	.22**	.14	.22**	.24**	.23**	.33**	.34**
	Community	.37**	.27**	.28**	.14*	.21**	.22**	.20**	.08	.37**	.24**
	Total	.40**	.33**	.34**	.16*	.26**	.23**	.28**	.16*	.44**	.31**

* p<0.05

**p<0.01

Table 14 displays the significant results from the inspection into the impact of gender on the correlation between exposure to violence and self-reported aggression.

Table 14

Significant Results Obtained from Comparisons of Correlational Scores Between Genders.

Exposure	Context	Aggression	Male	Female	p
Indirect Violence	Home	Verbal aggression	.26	.09	<.05
	Total	Verbal aggression	.32	.15	<.05
Physical/Verbal Abuse	School	Anger	.07	.24	<.05
Total Exposure	Total	Verbal aggression	.35	.19	<.05
	Home	Verbal aggression	.26	.10	<.05
	Total	Verbal aggression	.34	.16	<.05

From Table 14, it can be seen that males had a stronger significant correlation in all the cases indicated in the table, except for the correlation between exposure to physical/verbal abuse at school and anger.

4.5 Summary of Results

Whilst the sample has reported considerably low levels of exposure to violence in most of the contexts examined, they did however report being exposed to moderately high levels of indirect violence in their community. This exposure was significantly correlated to high levels of self-reported aggression. Results from the Analyses of Variance indicate that the females in the sample were exposed to more physical/verbal abuse at home, while males appear to witness traumatic violence at school and in the community more frequently. The levels of aggression reported by the sample appear to be high, particularly with regard to physical aggression, verbal aggression and hostility. With regard to gender differences females appear to be more hostile, while males indicate a higher level of physical aggression. Further analysis of the gender

differences suggest that males are more likely to display verbal aggression when exposed to violence, while females' exposure to physical/verbal abuse at school appear to increase their levels of anger.

5. DISCUSSION

The primary focus of this study was to ascertain the nature and levels of exposure to violence in the home, school and community as well as describe the manifestations of aggression amongst adolescents in the low socio-economic communities of Stellenbosch. The questionnaire was thus compiled to investigate these two variables using the two previously developed scales of the SAVE and the AQ. After their administration, the results of the questionnaires were delineated in order to describe the adolescents' experiences. While a specific assessment of the impact of other variables is beyond the scope of this research, their possible influence has been suggested in other research and some of these variables gain mention here. One factor that this research examined was the effect of gender. Gender appears to have both a biological and a social impact on the experience of violence and aggression; thus, within the sample the different levels of exposure to violence and aggression were measured.

The initial phases of the research consisted of the identification of the sample and the development of the questionnaire. Cluster sampling from the three schools was deemed to be an appropriate means to understand the experiences of violence and aggression of adolescents in these communities. The reason why this was favoured over random selection of participants for this particular study was that violence is not considered a random process in peri-urban communities such as these. Rather, violence is perceived to occur in specific areas because of the intersection of several social, demographic and economic variables. This point was argued by Wynchank (2000) to be particularly relevant to the consideration of violence within the South

African context. Accordingly, the intersection of these variables, which pinpoints potentially violent areas, is of particular concern among the coloured communities of the Western Cape. Thus, in the Stellenbosch District, the schools in the coloured communities were seen to be relevant for the study of violence and aggression amongst adolescents due to the high levels of violence in these communities.

The findings in this study are presented in three categories, namely exposure to violence, aggressive tendencies and correlations between exposure to violence and aggression respectively. These categories were further examined to establish if there are gender differences with regard to exposure to violence and aggression.

The results indicate the impact that exposure to different levels and types of violence have on aggression within the sample. They also indicate that other variables influence the extent of this relationship. While the magnitudes of these influences are not quantified in this study, it is important to be aware of their influences while discussing the results.

5.1 Levels of Exposure to Violence

Encouraging observations in this research were that the adolescents in the sample appeared to be exposed to what were considered to be low-levels of violence. These levels of violence exposure were considered to be lowest with respect to traumatic violence and physical/verbal abuse, with (1.6-14.8%) and (3.5-5.9%) of those sampled being exposed to high levels of these forms of violence, within the different contexts, respectively.

The levels of exposure to indirect violence were found to be high enough to be of concern. Sixty-seven percent of those sampled indicated that they had been exposed to what was considered to be high levels of indirect violence in the community. These results indicated that most adolescents were not directly exposed to violence, but were aware of its occurrence in their communities. Thus, evidence on the extent of violence in these communities was supported through the adolescents' experiences of violence. It appears that, while violence occurs in these communities, adolescents are protected from direct exposure. Due to the levels of direct exposure to violence being very low, it would be expected that adolescents are spared the effects of trauma related to the exposure to direct violence. However, as Cooley et al. (1995) and Kuther (1999) indicated, indirect exposure to violence could have similar psychological and behavioural consequences for adolescents as indirect exposure.

Given the police and hospital statistics, which indicate a high prevalence of violence and its injurious consequences in these communities (South African Police Services, 2003; Sergeant Foster, personal communication, July 28, 2004; Sergeant Hendriks, personal communication, July 30, 2004; Dr Jan Hill, personal communication, July 27, 2004), it was expected that adolescents from the community would be exposed to high levels of indirect violence. The observations of widespread violence in these communities clearly precipitated into the study's observation that individuals in the sample witnessed or heard of these violent events occurring within their community.

It is likely that the operations of gangs within these communities could be accountable for some of their present levels of violence. The presence of gangs within communities has often been associated with high levels of violence through the

occurrence of gang conflicts and their regard for violence, which promotes a climate of violence (Dissel, 1997; Pinnock, 1984; van Wyk, 2001). Thus, the youth who spend any time on the streets would hear of, or witness this violence there.

Whilst the observed levels of domestic and school violence are contrary to the observations of high levels of such violence from other South African literature (Collings & Magojo, 2003; Eliasov & Frank, 2000; Finneran, Bennet, & Sacco, 2001; Pietersen, 2002; Segal, Pelo, & Rampa, 1999; Vally, 1999; van der Hoven, 2001; Wynchank, 2000), it is encouraging to see that there were low levels of violence reported in these contexts. This observation could be accounted for by the introduction of laws against corporal punishment and the promotion of human rights which have been introduced to lower the levels of domestic violence and violence against children in South Africa (Butchart & Seedat, 1996; Krug et al., 2002). There may be further protective factors present within these communities which could further account for these low levels of violence. If this is the case, they should be researched, so as to enhance them in other communities. The low levels of violence in the school and home environments of these learners ensure that these contexts represent safe and constructive environments where positive/prosocial skills can be learned leading to optimal development. The persistence of these safe environments for adolescents has been found to assist in the discouraging of violence in other contexts (Stevens et al., 2001).

It must be cautioned that, while exposure to violence in these communities appears to be limited, exposure to violence has been observed to be a cumulative phenomenon. In their studies into exposure to violence in different contexts both Bell and Jenkins

(1993), and Govender and Killian (2001) observed that violence experienced in one context was a potentiating factor for exposure to violence in other contexts. These observations concur with the principle of inter-context reciprocity from the Ecological Model (Bronfenbrenner, 1979). Thus, while low levels of violence reportedly occurred in the home and the school contexts of those sampled, it is likely that the prevalence of violence on the community level may create a climate for potential mental health problems.

5.2 Levels of Aggression

With regard to the levels of aggression reported by the sample, it appears that the majority exhibited aggressive behaviour, particularly physical aggression (58.8%), verbal aggression (71.8%), and hostility (74.9%). The high levels of support for aggression in this sample are indicative that these adolescents hold this behaviour with positive regard or of instrumental value. Huesman (1994) maintains that individual normative beliefs are governed by social learning and the beliefs held by individuals are congruent with the levels of acceptance of the particular behaviour within the society. Thus, high levels of aggression are argued by researchers such as Barlow and Durand (1999) to be an indication of the acceptance of violence within a society through the subjective aggressive responses of individuals to their environmental stimuli.

Furthermore, the observation of high levels of aggression in the sample could be a prediction of future violent patterns within these individuals. This would have the effect of contributing to the already dire cycle of violence in these communities.

In other studies of aggression amongst South African youth, researchers such as Reddy et al. (2003) found that physical forms of aggression such as bullying and fighting were commonplace. Luyt and Foster (2001) ascribed their observations of high levels of aggression to the prevailing notions that men should exhibit traits of power and authority.

5.3 Correlations between Exposure to Violence and Aggression

The analysis of the correlations between the context and levels of violence exposure and the measures of adolescent aggression revealed that exposure to violence had a significantly positive influence on most forms of aggression. The strongest relationship in this regard was found between exposure to violence and self reported physical aggression. This suggests that adolescents who are exposed to violence are at an increased risk of being physically aggressive. The weakest correlation was found between exposure to violence and hostility, suggesting that adolescents who were exposed to violence were more likely to display aggression through other means than through hostility.

The observation that hostility has the weakest correlation with exposure to violence and that physical aggression has the strongest relationship can be seen to support Bandura's Social Learning Theory (1973). Physical aggression is more likely to be learned through direct exposure to violence whereas hostility is the cognitive component of aggression that is less likely to be learned from witnessing violent events (Buss & Perry, 1992).

The correlations of exposure to violence and aggression revealed that exposure to violence only accounted for between 0.2 and 12.9% of the recorded aggressive behaviour. Some of the other factors that could be accountable for the rest of the aggressive behaviour in this sample are the lack of conflict resolution skills, socio-economic stressors, academic achievement, peer expectations, media violence and the demands of adolescence (Archer et al., 1998; Berkowitz, 1993; Goldstein, 2003; Krug et al., 2002; Miczek et al., 1994; Muller et al., 2000).

The analysis of the correlations between exposure to traumatic violence and the measures of adolescent aggression revealed that exposure to this form of violence had a significantly positive association on most forms of aggression. The strongest relationship in this regard was found between exposure to violence and physical aggression. Hostility and verbal aggression showed weak relationships to exposure to traumatic violence.

The observation that exposure to traumatic violence is associated with physical aggression is concurrent with the study of van der Merwe and Dawes (2000). These researchers noted that exposure to traumatic violence is positively correlated with aggressive behaviour and deficits in self-regulation. The inability to regulate behaviour was thus seen as one of the factors that leads to acting out physical violence. Within the Social Learning Theory, aggression is seen as a modelled behaviour in which children's expressions of aggression are expected to correspond with the norms, attitudes and behavioural activities of those around them (Bandura, 1973). Lending support to the link between traumatic violence and physical aggression, Osofsky (1995) notes that acting out physically is a developmentally

appropriate response to trauma-related distress in that it externalises the traumatic experience.

It is also likely that individuals in this sample who are physically aggressive are increasingly likely to get into violent interactions more easily and thus are at an increased risk of being exposed to traumatic violence. This type of aggression-exposure interaction adds fuel to the individual's personal cycle of violence making him/her more aggressive and putting him/her at risk to more severe consequences of traumatic exposure.

The analysis of the correlations between exposure to indirect violence and the measures of aggression revealed that exposure to this form of violence had a significantly positive association on most forms of aggression. The strongest relationship in this regard was found between exposure to indirect violence and physical aggression. Hostility showed a weak relationship to exposure to indirect violence.

These observations were contrary to those of van der Merwe and Dawes (2000), who found that exposure to indirect violence, was not strongly correlated with physical aggression. Van der Merwe and Dawes (2000) suggested that through the witnessing of violence in such an indirect manner, the adolescent is able to empathise with the victim, thus decreasing their chance of engaging in violent behaviour. The observations in this study, however, suggest that this is not the case in this sample. It is likely that these individuals' experience of violence occurring within their ecosystem promoted more favourable views on violence. Hearing about violent events

can also teach adolescents to aggress without them having to go through the trauma of being exposed to, or witnessing, the violent event firsthand. The trauma-related factors that could potentially inhibit the modelling of the violent behaviour are thus absent, and the possible reinforcement of the act of violence is experienced when the violent event is relayed verbally to the individual.

Again, hostility appears not to be a form of aggression that is learned through direct observation of violence, hence the low correlation between exposure to indirect violence and hostility.

Based on the review of literature, it was expected that there would be a significant positive relationship between exposure to physical/verbal abuse and aggression. In this study this effect was found to be true, however, the relationship between exposure to physical/verbal abuse and aggressive behaviour was only a moderate one. The strengths of the relationships between physical/verbal abuse and the forms of aggression were all found to be fairly similar. The strongest relationship in this regard was that between the exposure to physical/verbal abuse and physical aggression. The weakest correlation was found between physical/verbal abuse and anger.

Within the framework of the Social Learning Model, it was expected that, through the exposure to physical or verbal abuse, adolescents would learn that physical aggression is an acceptable means of interaction (Bandura, 1973). Observations such as those of Krug et al. (2002) supported the Social Learning Theory of violence and aggression, finding that physical and sexual assault in the family lead to an increased regard for violence as a means to resolve problems. Furthermore, van der Merwe and Dawes

(2000) suggested that, based on developmental and learning theories, aggression was a developmentally appropriate response to violence. Another suggestion for the observed relationship could be found in the actual situation in which the individual is exposed to violence. In some situations of exposure to physical/verbal abuse, an individual may be compelled to react aggressively as a form of defence. The moderate relationship found in this study suggests that elements involved in the individual's response to physical and verbal abuse may have an inhibitory effect in the learning, or the expression of aggression. It is possible that the trauma experienced through direct victimisation by violence discouraged the expression of aggression through the role of other personal traits, such as empathy. The observation of the weaker relationship between physical/verbal abuse and anger could possibly be explained by the phenomenon of learned helplessness which has been described to occur among individuals who are continuously exposed to violence (Bandura, 1973).

While the results indicate that exposure to violence in the community is positively associated with all forms of aggression, they also indicate that exposure to violence in the community is most likely to result in the individual engaging in physical aggression, and least likely to result in them being hostile. It therefore appears that adolescents who are exposed to community violence are encouraged to act in congruence with what they perceive as normal behaviour, and are thus encouraged to be physically aggressive.

These observations are supported by findings by Cooley, Turner and Beidel (1995), van der Merwe and Dawes (2000) and Govender and Killian (2001) who found that youth exposed to high levels of community violence were more likely to show

externalising behaviour and other violent ways of interacting. These researchers maintained that externalised behaviour occurred as a result of social learning in which the youth modelled their physically aggressive behaviour due to the appraisal of the ambient violence. Van der Merwe and Dawes (2000) reported feelings of anger, helplessness and reduced impulse control in children exposed to violence in the community. All of these feelings have a negative impact on constructive learning. The source of much of the learned violent behaviour in communities such as this one can be traced back to the process of socialisation. Furthermore, researchers maintain that externalised behaviour in impoverished communities is an indication of poor resolution of developmental tasks. Du Plooy (2002) found that the stress, anxiety and fear associated with exposure to community violence interferes with the attainment of developmental tasks such as emotional regulation, mastery over the environment and the ability to form relationships. The observation of these frustrations could, through the frustration aggression theory (Dollard et al., 1939), explain the link between exposure to violence and aggression. Accordingly, frustrations caused by the failure to accomplish these developmental tasks may be the cause of some of the aggression observed in adolescents exposed to community violence. Other negative social factors such as the high levels of alcohol consumption and the prevalence of gangs could exacerbate the levels of community violence (Maree, 2000; van Wyk, 2001).

While the results indicate that exposure to violence in the home is positively associated with all forms of aggression, they indicate that exposure to violence in the home is most likely to result in the individual engaging in physical aggression, and least likely to result in displays of verbal aggression. These observations were consistent with those of Richters and Martinez (1993) as well as those of Salzinger et

al. (1993) who found greater levels of aggressive and violent behaviour in youth exposed to domestic violence. Muller et al. (2000) observed that the lack of protective factors further increased the development of antisocial behaviours among youth exposed to domestic violence.

The Social Learning Model maintains that, through regular contact with a model, the individual imitates that behaviour (Bandura, 1973). Typically, the models in the home environment are the parents or caregivers who are argued by Bandura (1973) to have a strong impact as models for the individual's behaviour. The home environment is possibly the most consistent environment for youth, thus if youth are exposed to violence in this environment, they are increasingly likely to internalise such behaviour. Findings such as those of Maree (2000) contend that the exposure of disadvantaged youth to violence in the home environment increases the likelihood of them displaying violent and aggressive behaviour. The susceptibility of disadvantaged youth to both violence and its consequences is ascribed to the lack of supportive social structures for both the individuals and their parents/caregivers. Physical abuse by parents has also been shown to lead to potential impairments in social functioning, thus compounding the individual's ability to gain social support outside of the home (Krahé, 2001). Through deficits in social functioning, it is also likely that adolescents may act undesirably, even aggressively, in social situations.

While the results indicate that exposure to violence at school is positively associated with all forms of aggression, they specify that exposure to violence at school is most likely to result in the individual engaging in physical aggression, and least likely to result in displays of anger.

Research, such as that of O' Keefe (1997), produced similar findings demonstrating that violence at school was related to externalising behaviour problems such as aggression amongst adolescents. As an environment designed for learning, in some disadvantaged communities, the school has been found to be an instrument in which the cycle of violence is perpetuated. Gaillard-Thurston (2003) found that violence taking place within the school, led to the acceptance of violence as a means to enforce authority by both educators and learners. For learners, this entailed both the acceptance of teacher-on-learner violence as a means employed by teachers to enforce discipline and learner-on-learner violence as a means to establish social ranks among the learners. The previous practice of corporal punishment in South African schools has played a part in the climate of violence experienced at schools and has been shown to lead to increased aggressive behaviour, disturbances of interpersonal relationships and psychological maladjustment in youth exposed to it (Maree, 2000). Furthermore, research by Eliasov and Frank (2000), Gaillard-Thurston (2003), and Stevens et al. (2001) indicate that learners who receive physical punishment from teachers are at risk of developing psychological and social distress, acting out and antisocial behaviours, as well as an inability to handle conflict situations.

In the school environment, the phenomenon of gangsterism is again a concerning factor that could promote violent ways of interacting, thereby increasing levels of physical aggression. Through gang conflicts at schools, learners may be exposed to violence and feel compelled to act in overtly physical ways to ensure their status, especially if they are gang members themselves. These displays of toughness and authority by gang members were found in Cloeteville Senior Secondary School (van Wyk, 2001). Furthermore, gangs promote dealing in drugs and alcohol among

learners, the consumption of which have strong associations with violent behaviour (Biersteker & Erlank, 2000).

5.4 Gender Differences

The hypothesis that males will be significantly more exposed to violence than females was examined on two levels. The first level examined the gender differences in exposure regarding the predefined types of violence exposure (traumatic, indirect and physical/verbal), while the second level was concerned with the differences in exposure regarding the different contexts (home, school and community). Whilst the overall levels of exposure to violence were not considerably high, different levels of exposure to violence were observed between males and females for these different types and contexts of violence. The results of these analyses revealed that, while males were exposed to more violence than females for most of the types of violence and all of the contexts, females were found to be exposed to significantly higher levels of violence than males for some of the types of exposure.

While there was a tendency for males to be exposed to higher levels of violence in all contexts, the school context was found to be the only location where there was a significant difference in levels of exposure with regard to gender. Males reported being exposed to significantly more violence at school than were females. This difference can be attributed to the value that such communities have been reported to hold for violence in social interactions and the contextualising of the school as a primary source of most forms of social interaction (Sathisparsad, 2003; Stevens et al., 2003). This observation concurs with previous research that indicates that bullying and violent peer rivalry is most prevalent in the school environment of adolescents

from similar communities. Furthermore, such research indicates that these are predominantly male phenomena (Barbarin & Richter, 2001; Govender & Killian, 2001; Ramphela, 2002; Wilson, 1996).

Through its promotion of male values of authority and toughness, the patriarchal society, which exists in much of South Africa, could explain the increased value that males place on violence and their subsequent exposure to violence in their interactions. Huesmann (1994) maintains that individuals observe aggressive behaviour in those with whom they identify and aggression becomes a scripted behaviour that is acted out within their social interactions. Another factor, that promotes traits of maleness in such communities, is the culture of gangs. The observation of predominantly male gang activities within schools could be accountable for violence occurring at school, that males witness or are victimised more often than females. In such a culture, men are encouraged to be strong and dependable and are often found to portray this through physical means such as violence (van Wyk, 2001).

The results indicate that males were prone to being more exposed to all types of violence. However, the only type of exposure which males were found to be significantly more susceptible to than females was exposure to traumatic violence. This observation suggests that these males are not only more likely to be exposed to violence, but they are also more likely to be exposed to more severe forms of violence. Again, this observation can be accounted for by the males' accepting attitude towards violence and their notions of masculinity (Wilson & Daly, 1996).

Govender and Killian (2001) noted that exposure to violence has a cumulative nature and that violence exposure of a less-severe form potentiates violence exposure of another more severe form. According to Hastings and Kelley (1997), traumatic violence is a severe form of violence. While this was not directly measured, the implications of the males' observed high levels of exposure to traumatic violence could be severe. As Moses (1999) indicates, high levels of exposure to traumatic violence induce stress and depression, which impact negatively on social development.

On the second level it was observed that gender differences regarding the different types of violence seem to be influenced by the context in which the violence exposure occurs. Thus, not only were males found to be exposed to higher levels of traumatic violence in total, but this was specifically the case for exposure to traumatic violence in school and in the community contexts. These observations lend support to the perceptions that male peer interactions in such communities appear to be violent while also giving an indication of the detrimental effects of males spending more time on the streets than females. Males' exposure to traumatic violence at school can be accounted for by the occurrence of bullying and gang activity in such environments being a predominantly male activity (Barbarin & Richter, 2001; Dissel, 1997; Govender & Killian, 2001; Neser, Owens, van der Merwe, & Marodi, 2004; Ramphele, 2002; Stevens et al., 2001). Teacher-on-learner violence, under the guise of punishment may also be more prevalent amongst males in this sample than females as was observed in similar communities by Gaillard-Thurston (2003). While males are more likely to spend time on the street, suggesting that they will be more vulnerable to community violence, they are also more likely to be involved in violent peer

interactions associated with masculinity and subsequently further increase their risk of being exposed to traumatic violence in their communities (Dissel, 1997; Luyt & Foster, 2001; Reddy et al., 2003).

With regard to the subscale of physical/verbal abuse, females were observed to be exposed to significantly higher levels of this form of violence within the home than were males. This result can be explained by both the continued existence of a patriarchal society and observations of the amount of time spent in the home environment by the different genders. Through the observations of adherence to patriarchal roles in society, Jewkes et al. (2002) maintain that the male child tends to be favoured and the brunt of any existing domestic violence, such as physical/verbal abuse, is borne by the females. Bollen et al. (1999) indicate that the abuse the daughter may be experiencing from her parents could possibly be further compounded through her receiving abuse from the mother, who may be venting the abuse that she is receiving from the males. On the other hand, the male child is protected from this abuse by his apparently higher status in the family structure and/or his absence from the home.

Contrary to the hypothesis that males will report significantly more aggression than females, the total scores for aggression for both genders indicate that both males and females express aggression in a similar manner. This observation suggests that the phenomenon of aggression within the sample is not favoured by, or limited to a specific gender. The differences between genders occur when looking at the specific manner in which aggression is expressed. Males tend to express aggression physically

while females present with a significantly more hostile form of aggression. Verbal aggression and anger were found to reveal no significant gender preferences.

The observation that males express their aggression physically, while females favour more covert forms of aggression is relatively common and well documented (Farrell & Bruce, 1997; Olivier, 2003; Vogel, 2002; Wilson, 1996). These researchers maintain that explanations for these differences are found in biopsychosocial variables. Among these variables are biological predispositions, gender socialisation and personal attributes towards violence.

Biological considerations supporting the observation that males are more physically aggressive than females centre on the physical capabilities of the different genders as well as their hormonal differences. Males are generally regarded as being physically stronger than females and as such are observed to favour physical interactions.

Testosterone is observed to play a role in promoting physically aggressive behaviour in males (Miczek et al., 1994).

At a psychosocial level, the traditional gender socialisation, perpetuate male expressions of physical dominance and the passive roles of females. The gender socialisation that exists within these communities is a consequence of social learning in which young females identify with older females and young males with older males (Bandura, 1973). Through this identification, they model their behaviour according to the existing gender roles in their society thereby acting in accordance with the perceived norms for their gender. In their explanation for the higher occurrence of physical aggression in males, Jewkes et al. (2002) maintain that the rigid gender

socialisation that exists in South Africa promotes the exercising of power by males. Males may thus be seen to fulfil their socialised role in which authority and power are key elements, through resorting to overt, physical acts of aggression. On the other side of the phenomenon of gender socialisation, females are expected to be more passive in their social interactions and their expressions of overt aggression are looked on less favourably. Thus the observations made in this study that females display a greater extent of hostility is an indication that these gender roles are enacted within the adolescent females from these schools.

The equal levels of aggression displayed by both genders in the sample indicate that aggression as an experience is not restricted by gender but is significant of the context. Rather, factors pertaining to gender (particularly gender socialisation) are suggested to mediate the type of aggression that is expressed.

It was hypothesised that gender would show a mediatory role with regard to the correlations between exposure to violence and aggression. With regard to this hypothesis, gender did not appear to have a strong mediatory effect on this relationship in most instances. However, in some cases gender was found to have a possible impact on this relationship. Male learners were found to be more likely to display verbal aggression if they have been exposed to indirect violence or general violence at home and in total. This was also the case with males who had been exposed to physical/verbal abuse in total. On the other hand, female learners exposed to physical/verbal abuse at school were found to be more likely to display anger. These observations suggest that males may view verbal aggression as a more acceptable behavioural response to exposure to violence than females. Through

displays of verbal aggression by males exposed to violence, it is possible that these males may be attempting to portray an image of “toughness” while not wanting to participate in, or at least limiting their participation in, physical acts of aggression. This may be due to the males’ awareness of the consequences of such behaviour being heightened by their own experiences of them. The image of toughness which males are compelled to display is a consequence of their gender socialisation (Luyt & Foster, 2001)

According to the Frustration Aggression Hypothesis (Dollard et al., 1939), when obstacles are placed in the way of a desired goal individuals may react in an aggressive way. The increased level of anger displayed by females who are exposed to physical/verbal abuse at school could thus be explained by a consequential increase in frustration, which is possibly being caused by violence exposure at school. This frustration may therefore be accounted for by females’ perceptions of a lack of safety in the school environment combined with the social requirement for them to remain passive. As indicated by Buss and Perry (1992), anger is a state of physiological arousal. Therefore, females are aroused (or frustrated) by the cues that exist at school, and yet they do not act on them in a physical way due to their socialisation to maintain passivity.

5.5 Limitations

While the results of this study are in line with what was expected to be observed in a sample such as this, several changes in the research technique could be made in order to improve the accuracy of the data and the reliability of the findings.

Most of the limitations of this research centre on the way in which the data was gathered. While self-reporting of violence and aggression is found to be a reliable means of gaining this information, it is limited by the sample's understanding and interpretation of the items (Baldry & Winkel, 2004). The questionnaire's limitations in its ability to distinguish between high and low scores was a problem in the analysis of these results, and it would be advised to alter the response categories in order to gain a wider range of scores for each of the subscales. Furthermore, the learners' understanding of the items is also brought into question here. It would be advisable to have focus group discussions with learners to see how they interpret the items and possibly alter the items further to gain more accurate results. It was not possible to conduct focus group interviews in this study due to the limited accessibility of the learners to the researcher.

Another suggestion would be to gain more objective reports on the levels of violence experienced by the youth. While police and hospital records reported in this study provide an objective view of violence in the youths' communities, they are not detailed or specific enough to describe the personal levels of violence experienced by each of the youth. The information on levels of violence exposure gathered from the questionnaire could thus not be corroborated with any other reports of individual experiences of violence. It would enhance the effectiveness of this study if more

objective measures of violence and aggression were taken. A suggestion here would be to measure peers', teachers' and parents' perceptions of the levels of violence and individual aggression. The same limitation that applies to the reporting of exposure to violence also applies to measurement of aggression. An objective measure of an individual's levels of aggression could also be gained through the observations of other people close to the individual.

While it was not the focus of the present study, it would be useful to add further scales which would describe the causative link between exposure to violence and aggression. This study does, however, show that these factors are associated within this sample of adolescents. While theories strongly suggest that the association between these variables is a casual one, follow up studies would need to be administered to examine the mechanisms through which aggression is realised.

5.6 Recommendations

While the levels of violence the sample were exposed to were encouragingly low, especially in their school and home environment, it is still concerning that adolescents in this community are exposed to violence. As indicated by the Ecological Model, violence occurring on the macro-level has an impact on the individual. With this in mind, national tolerance of violence needs to be challenged, thereby decreasing violence on the micro-level. More effective policing, stricter legislation regarding firearms and restriction of violence in the media (especially television) need to be achieved in order to further reduce the consequences of exposure to violence.

The high aggression levels within the sample reflect the low levels of constructive conflict resolution skills and prosocial behaviour present in the sample. In order to reduce the levels of aggression in the sample, children should, therefore, be taught constructive forms of conflict resolution. Furthermore, efforts should be made to reduce the perception that violence is a socially sanctioned form of interaction. These issues should be addressed through multi-levelled strategies in which individuals and their environments are considered.

Other factors that are responsible for the promotion of violence need to be addressed in a constructive manner. These factors include poverty, alcohol, drugs and gangs.

The occurrence of violence in the home environment is a concern raised in this research, especially for the female adolescents. In order to address this issue, parents and caregivers need to be equipped with the means to protect adolescents from exposure to violence and resolving conflict through aggression. Approaching this issue, it would be advisable to assess, and if necessary enhance, the levels of conflict resolution skills in the adult population and encourage their participation as prosocial models for their children. Community interventions such as the Usiko Project in Jamestown, in which adults are used as role models for adolescents, are an example of this type of intervention and need to be further encouraged in such communities (Naidoo & Van Wyk, 2003). Due to the severity of the factors of aggression and violence within these societies, it is important to address them at all levels of society.

The two scales used in this study, the SAVE and the AQ were found to be appropriate and reliable instruments in the determination of exposure to violence and aggression levels among this sample of learners. However, the discriminatory power of these

scales within the particular sample was questionable. It would be recommended that the SAVE subscales be further revised for future use with similar samples. This revision would be aimed at making the response categories more varied and revising items to be more encompassing of mid-level violent events. Bearing these recommendations in mind, both the scales should be used in further studies of larger and more diverse samples within South Africa in order to measure exposure to violence and self-reported aggression.

5.7 Conclusion

The findings of this study reflect many of the trends in levels of exposure to violence and subsequent aggressive tendencies amongst adolescents. Encouraging observations of this research were that these adolescents from Jamestown, Cloeteville and Idas Valley communities did not appear to be exposed to extremely high levels of violence. Relatively low levels of exposure to violence were found for the subscales of traumatic exposure and physical and verbal abuse. While the levels of these adolescents' exposure were apparently low, there were still indications that they were exposed to violence. There was a high level of indirect exposure to violence specifically in the community, indicating that these adolescents were witnesses of violence occurring around them.

High levels of hostility, verbal and physical aggression were found in the sample. This observation lends support to the theories of violence advocating modelling. Given that adolescents are exposed to overt acts of violence more regularly than covert ones, they appear to have adopted these overt acts in their own behaviour. Particularly interesting to note is that males are seen to be significantly more

physically aggressive whereas females are more hostile. This observation again shows the effect of social modelling, specifically gender stereotyping.

The two scales measuring exposure to violence (SAVE) and aggression levels (AQ), within this sample of learners, were found to be reliable as both scales recorded good levels of internal consistency for the subscales used in this study. However, the discriminatory power of the scales was questionable within this sample.

The study recommends that efforts be made to reduce the levels of aggression within the schools, as high levels of violence in this context are of concern for healthy development of youth. Schools play an integral role as a socialising agent during the adolescence process. Training in prosocial activities as well as positive conflict resolution skills would go a long way in reducing these levels of violence.

With the enormous problem of violence in the South Africa, this study adds to the ever-increasing body of literature that seeks to monitor and understand the causes and consequences of this phenomenon. Alongside this large body of research, many programmes have been developed and administered to diverse groups who are affected by violence. The success with which these programmes address the problem of violence is dependent on the important contributions made by all involved in the study and prevention of violence. Addressing the continued existence of violence on all levels of society is, however, still a daunting challenge facing humanity. It is hoped that the insight gained from this research will contribute another step towards breaking the cycle.

5. REFERENCES

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UNIVERSITEIT VAN STELLENBOSCH
UNIVERSITY OF STELLENBOSCH

4 March 2004

The Head
For Attention: Director: Education Research
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000

Dear Sir

RE: PERMISSION TO CONDUCT RESEARCH

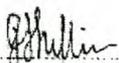
We are full-time Masters students in the Department of Psychology at the University of Stellenbosch and hereby request permission to conduct research with Grade 9-11 learners at Luckhoff High School, Stellenzicht and Cloetesville Senior Secondary Schools during the second term of 2004.

TITLE: THE RELATION BETWEEN EXPOSURE TO VIOLENCE AND SOCIAL INFORMATION PROCESSING AMONGST ADOLESCENTS

We are interest in children's levels of exposure to violence and how they internalise their experiences. The attached questionnaires measure children's exposure to violence in the home, school and community, their self-reported aggression and what conflict resolution strategies they employ in resolving conflict. The research will not interfere with the academic programmes of the schools and participation will be on a voluntary basis. Our supervisors are Ms WH Theron and Ms S van Wyk. Please contact Ms Theron at wht@sun.ac.za should you require any further information.

We trust our application would meet your approval at your earliest convenience.

Yours faithfully


.....
Daniel Sullivan
Student nr. 13434985


.....
Soltrious Short
Student nr. 14495724


.....
Ms WH Theron
Lecturer

Ⓢ Questionnaires in post

Navrae
Enquiries Dr R.S. Cornelissen
iMibuzo
Telephone
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Faks
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iFeksi
Verwysing
Reference 20040406-0053
iSalathiso



Wes-Kaap Onderwysdepartement

Western Cape Education Department

ISebe leMfundo leNtshona Koloni

Mr Daniel Sullivan
Department of Psychology
University of Stellenbosch
Private Bag X1
MATIELAND
7602

Dear Mr D. Sullivan

RESEARCH PROPOSAL: THE RELATION BETWEEN EXPOSURE TO VIOLENCE AND THE INTERPERSONAL CONFLICT RESOLUTION STRATEGIES AMONG HIGH SCHOOL LEARNERS IN THE STELLENBOSCH DISTRICT.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from 15th April 2004 to 30th June 2004.
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December 2004).
7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the Principal where the intended research is to be conducted.
9. Your research will be limited to the following schools: **Stellenzicht Secondary, Cloetesville Secondary and Lückhoff High School.**
10. A brief summary of the content, findings and recommendations is provided to the Director: Education Research.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

**The Director: Education Research
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000**

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen
for: HEAD: EDUCATION
DATE: 15th April 2004

MELD ASSEBLIEF VERWYSINGSNOMMERS IN ALLE KORRESPONDENSIE / PLEASE QUOTE REFERENCE NUMBERS IN ALL CORRESPONDENCE :
NCEDA UBHALA INOMBOLO ZESALATHISO KUYO YONKE IMBALELWANO

GRAND CENTRAL TOWERS, LAER-PARLEMENTSTRAAT, PRIVAATSAK X9114, KAAPSTAD 8000
GRAND CENTRAL TOWERS, LOWER PARLIAMENT STREET, PRIVATE BAG X9114, CAPE TOWN 8000

WEB: <http://wced.wcape.gov.za>

APPENDIX 2 (Questionnaire)

JOU NAAM WORD NIE GEVRA NIE, WEES DUS EERLIK

NIEMAND SAL WEET DIT IS JOU ANTWOORDE NIE.

BEANTWOORD ASSEBLIEF AL DIE ITEMS.

BAIE DANKIE VIR JOU SAMEWERKING.

APPENDIX 2A (Demographic Section)

MERK ASSEBLIEF DIE GEPASTE ANTWOORD MET 'N X

GESLAG	Manlik		Vroulik				
GRAAD	9	10	11				
OUDERDOM	13	14	15	16	17	ouer	
BY WIE BLY JY? VOOG(DE)				Albei Ouers	Ma	Pa	Ander:
WERKSTATUS VAN? VOOG(DE)				Werk	Werkloos		
WOONPLEK:	Huis	Woonstel	Kamer	Wendyhuis	Ander:		
HOEVEEL MENSE BLY IN JOU WOONPLEK? Getal:							
NEEM JY AAN BUITEMUURSE AKTIWITEITE DEEL?				Ja	Nee		
Indien Ja, noem:							

APPENDIX 2B (AQ)

INSTRUKSIES: Dui met 'n X aan hoe dikwels die volgende gedrag kenmerkend van jou is. Beantwoord asseblief al die items. Kies asseblief net EEN antwoord by elke item.

	Nooit	Partykeer	Baie keer	Altyd
1. Ek raak vreeslik jaloers.				
2. Ek stry maklik met ander mense.				
3. Ek kan myself nie keer as ek iemand wil slaan.				
4. Ek sal vir mense in hulle gesigte sê as ek nie saamstem nie.				
5. As ek kwaad word kan ek vinnig weer afkoel.				
6. As iemand lank genoeg met my sukkel sal ek hom/haar slaan.				
7. As ek gefrustreed is, sal ek dit wys.				
8. Ek voel die lewe behandel my sleg.				
9. As iemand aan my slaan, sal ek terugslaan.				
10. As mense my kwaad maak sal ek vir hulle sê wat ek van hulle dink.				
11. Ek voel soos 'n bom wat wil ontplof.				
12. Ek voel ander mense kry beter kans in die lewe as ek.				
13. Ek raak in "fights" betrokke.				
14. Ek stry met mense as hulle nie met my saamstem nie.				
15. Ek is 'n maklike mens om oor die weg mee te kom.				
16. Ek voel bitter oor dinge.				
17. Ek sal geweld ("violence") gebruik (slaan, skop, baklei) om my regte te beskerm.				
18. Mense sê ek stry maklik met ander.				
19. My vriende sê ek het 'n vinnige humeur ("temper").				
20. Ek weet dat mense agter my rug van my praat.				

	Nooit	Partykeer	Baie keer	Altyd
21. Daar is mense wat my te ver dryf dat ons op die ou end baklei.				
22. Ek raak maklik kwaad vir geen rede nie.				
23. Ek vertrou nie vreemde mense wat te vriendelik is nie.				
24. Ek kan nie aan 'n goeie rede dink om iemand te slaan nie.				
25. Ek sukkel om my humeur ("temper") te beheer.				
26. Ek voel dat mense agter my rug vir my lag.				
27. Ek het al mense wat ek ken gedreig.				
28. As mense te vriendelik met my is, wonder ek wat hulle wil hê.				
29. Ek het al so kwaad geword dat ek goed gebreek het.				
30. Ek raak gou kwaad.				

APPENDIX 2C (SAVE)

INSTRUKSIES: Dui met 'n **X** aan hoeveel keer jy die volgende in die afgelope jaar ervaar het by die huis, die skool en in jou buurt. **Beantwoord asseblief al die items. Kies asseblief net EEN antwoord by elke item.**

	Nooit	Min kere	Dikwels	Baie keer	Amper altyd
1. Ek het iemand met 'n skietding gesien :					
By die huis					
By die skool					
In die buurt					
2. Volwassenes skree op my:					
By die huis					
By die skool					
In die buurt					
3. Ek het gehoor van iemand wat geskiet is:					
By die huis					
By die skool					
In die buurt					
4. Ek het skuiting gesoek toe mense begin skiet het:					
By die huis					
By die skool					
In die buurt					
5. Ek het gesien hoe iemand geskiet word:					
By die huis					
By die skool					
In die buurt					
6. Ek het gehoor van iemand wat sleg geslaan is:					
By die huis					
By die skool					
In die buurt					

	Nooit	Min kere	Dikwels	Baie keer	Amper altyd
7. Volwassenes slaan my erg:					
By die huis					
By die skool					
In die buurt					
8. Ek het gesien hoe iemand vermoor word:					
By die huis					
By die skool					
In die buurt					
9. Ek het gesien hoe die polisie iemand arresteer:					
By die huis					
By die skool					
In die buurt					
10. Ek het iemand met 'n mes gesien :					
By die huis					
By die skool					
In die buurt					
11. Ek het gesien hoe iemand 'n ander persoon met 'n skietding dreig:					
By die huis					
By die skool					
In die buurt					
12. Ek het gesien hoe 'n volwassene 'n kind slaan:					
By die huis					
By die skool					
In die buurt					
13. Ek is erg beseer:					
By die huis					
By die skool					
In die buurt					
14. Ek het gehoor van iemand wat vermoor is:					
By die huis					
By die skool					
In die buurt					

	Nooit	Min kere	Dikwels	Baie keer	Amper altyd
15. Ek het gesien hoe iemand erg beseer word:					
By die huis					
By die skool					
In die buurt					
16. Ek het gehoor van iemand met 'n skietding:					
By die huis					
By die skool					
In die buurt					
17. Ek is raakgeskiet:					
By die huis					
By die skool					
In die buurt					
18. Iemand van my ouderdom slaan my:					
By die huis					
By die skool					
In die buurt					
19. Ek het gesien hoe mense op mekaar skree:					
By die huis					
By die skool					
In die buurt					
20. Ek het gehoor van iemand wat met 'n mes aangeval is:					
By die huis					
By die skool					
In die buurt					
21. Ek is met 'n mes aangeval:					
By die huis					
By die skool					
In die buurt					
22. Ek het gesien hoe 'n kind 'n volwassene slaan:					
By die huis					
By die skool					
In die buurt					

	Nooit	Min kere	Dikwels	Baie keer	Amper altyd
23. Ek het gesien hoe iemand sleg geslaan word:					
By die huis					
By die skool					
In die buurt					
24. Iemand het 'n skietding op my gerig:					
By die huis					
By die skool					
In die buurt					
25. Volwassenes slaan my:					
By die huis					
By die skool					
In die buurt					
26. Ek het gesien hoe iemand met 'n mes aangeval word:					
By die huis					
By die skool					
In die buurt					
27. Ek hoor geweeskote ("gunshots"):					
By die huis					
By die skool					
In die buurt					
28. Iemand het met 'n mes na my gemik:					
By die huis					
By die skool					
In die buurt					
29. Volwassenes het gedreig om my sleg te slaan:					
By die huis					
By die skool					
In die buurt					
30. Ek het gesien hoe iemand 'n ander persoon met 'n mes dreig:					
By die huis					
By die skool					
In die buurt					

	Nooit	Min kere	Dikwels	Baie keer	Amper altyd
31. Daar is na my geskiet:					
By die huis					
By die skool					
In die buurt					
32. Iemand van my ouderdom het gedreig om my sleg te slaan:					
By die huis					
By die skool					
In die buurt					

APPENDIX 3A (Crime stats Jamestown)

Stellenbosch University <http://scholar.sun.ac.za>

VIOLENT CRIMES: 2003

CRIME	Reported	CBD	Part of CBD and Residential area	Around Campus and Residential area	Around Hostels and Residential area	Jamestown	Farming Areas	Other Residential areas	Kayamandi	Railway Stations
Common Assault	404	51	56	35	30	25	150	35	161	2
Assault GBH	257	17	33	10	6	23	138	9	167	4
Robbery with an other weapon	58	13	16	5	4	0	5	8	16	5
Common Robbery	56	12	14	9	4	1	5	4	57	1
Robbery with a firearm	55	9	5	2	4	0	17	4	23	4
Rape and attempts	40	1	1	3	1	1	26	2	25	2
Murder and attempts	39	1	2	3	6	1	19	2	32	2
Domestic Violence	34	0	0	3	0	1	12	0	18	0
Child Abuse	2	0	0	0	0	0	0	1	1	0

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Cloetesville Police Station Crime Statistics, personal communication with Sergeant Hendricks, 28 April 2004

assault with GBH	Murder	Rape	Assault Common	Common Robbery	Motor Vehicle	House breaking	Theft	
2	0	0	6	3	4	5	13	March
8	0	3	8	1	2	10	23	
8	0	1	5	1	4	11	10	
10	1	0	9	5	3	8	16	
28	1	4	28	10	13	34	62	total
9	3	0	3	4	7	5	11	April
3	0	0	6	3	3	6	9	
5	1	0	13	4	9	13	10	
6	0	1	8	1	7	14	15	
23	4	30	30	12	26	38	45	total
5	0	0	3	4	7	9	19	May
6	0	0	9	2	3	4	13	
0	0	1	9	3	3	5	8	
5	0	0	13	0	2	2	14	
16	0	1	34	9	15	20	54	total
1	0	2	9	0	4	3	10	June
1	0	1	3	3	2	4	10	
4	0	0	4	2	1	0	10	
6	0	3	16	5	7	7	30	total
73	5	38	108	36	61	99	191	total 4months

APPENDIX 3B (Crime stats Cloetesville/Idas Valley)

APPENDIX 3C (Hospital Admissions Stellenbosch)

Dear Daniel

Attached are our stats for trauma at our Casualty. The H denotes hospital patient and the P is private patient.

Of the hospital patients I would say that the majority are violence related and the minority accidents of various sorts.

Hope this helps

jh

2003	H	P	2004	H	P
JULIE	385	0	JAN	428	9
AUG	419	0	FEB	536	0
SEPT	418	2	MRT	414	0
OKT	422	10	APR	379	0
NOV	539	8	MEI	450	0
DES	483	5	JUN	337	0
	2666	25 = 2691		2544	9=2553

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